

WORKSHOP MANUAL



VITRA ECONOMY 2030/40

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DEAR CUSTOMER:

Thank you very much for purchasing a VITRA.

This operator's manual provides the information necessary for operating and maintaining your Vitra safely and properly. The contents are mainly composed of the following two items:

SAFETY INSTRUCTIONS:

Essential items which you should observe while operating the machine.

TECHNICAL INSTRUCTIONS:

Essential items which you should observe while operating the machine.

Before operating the machine for the first time, you should read this operation manual thoroughly and carefully until you are sufficiently familiar with the operation of the machine to do jobs safely and properly. The manual should be kept in a handy place so you can refer to it when required. You are advised to refer to it from time to time to refresh your understanding of the machine.

Your dealer has performed the pre-delivery service on your new machine. He will advise you regarding the operating and maintenance instructions give in this manual, and instruct you in the proper and varied applications of this machine. Call on him at any time when you have a question, or need equipment related to the use of your machine.

Be sure to wear proper personnel protective equipment during operation.

In some of the illustrations used in this operation manual, panels or guards may have been removed to clarify information. Never operate the tractor with these panels and guards removed. If the removal of a shield is necessary to make a repair, it must be replaced before operation.

All information, illustrations, and specifications contained in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

VEHICLE INFORMATION:

The information in this publication describes the operation, maintenance and servicing of the VITRA. Every effort has been made to provide correct and accurate information to you, the operator, as available at date of book publication.

Your VITRA Dealer is available should items in this book or details of your machine not be understood.

This book is supplied with each machine to familiarize the operator with proper instructions needed for operation and maintenance. Studying and complying to these instructions will insure optimum machine performance and longevity. Properly maintained operated in the prescribed manner will provide greater dividends than one that is neglected and/or operated in manner other than as prescribed.

The design and servicing of this machine has been kept as simple as possible to permit maintenance operations to be carried out with tools normally available.

This book should be thoroughly read and understood prior to operation of this machine. Inexperienced operators should study contents of this publication and receive instruction from an experienced operator when possible.

Your VITRA Dealer can also assist in areas concerning machine operation and provide details concerning safe operation. It is suggested that this booklet be kept readily accessible, preferably with the machine, for future reference if questions or concerns arise. If the original book should become damaged, please consult your Dealer in regards to acquiring a replacement.

Customers are strongly advised to use an official VITRA dealer in connection with any service problems and adjustments that may occur. The VITRA Dealer network is specially trained and equipped to handle all service work and to advise customers on specific applications of the Tractor in local conditions.

SAFE OPERATION:

1. HOW TO BE A SAFE OPERATOR.

- 1.1. Familiarize yourself fully with machine controls by studying the operation manual before using your machine.
- 1.2. Never allow persons listed below to operate the machine.
 - Persons with mental disease
 - Persons who cannot operate the machine properly because of fatigue, illness, or drowsiness from medication, etc.
 - Young persons or children too young to legally operate the machine.
 Always be careful of your health by taking suitable rest breaks.
- 1.3. Wear appropriate clothing and other protective devices during operation.
- 1.4. Protection from poisonous dust or gases
Be sure to wear a protective device to protect the respiratory system, eyes, and skin when handling poisonous chemicals.
- 1.5. When another person operates your machine, you must explain how to operate and instruct him or her to read this manual fully to avoid unexpected accident.
- 1.6. Inspect and service the machine periodically in accordance with the instructions given in the operation manual to maintain the machine in best condition.

2. BEFORE STARTING THE ENGINE.

- 2.1. Set up an operation plan with sufficient time allowance. A tight plan may result in unexpected accidents when work has to be rushed.
- 2.2. Inspect and service the machine periodically in accordance with the instructions given in the operation manual to maintain the machine in best condition.
- 2.2 A Pay special attention to the controls, especially to the brakes and driving pedals, and safety measures for the machine functions properly and performs normally, the chance of an accident will be reduced greatly.
If safety devices are damaged or do no work, please consult your VITRA dealer.
- 2.3. Before removing a safety devices, such as a safety cover, be sure that the machine has stopped completely.
Never forget to replace the removed part after servicing.
- 2.4. Before starting to move, pay attention to safety conditions around the machine to avoid injury to bystanders or damage to property. Never move abruptly.

3. DURING OPERATION.

- 3.1. During operation, never allow other persons in the vicinity of the tractor, because the tractor itself or flung pieces may cause injury.
- 3.2. Pay attention to safety around the tractor to avoid injury to bystanders or damage to property. Especially when operating with other persons, use the horn to warn them. Don't move until you see a clear intention from them.
- 3.5. When moving the machine toward an implement for the purpose of installing the implement, never allow any one to stand in between. When installing the implement on the machine, be prepare to move away promptly in the event of an emergency. The brakes should be applied securely during installation.

SAFE OPERATION:

- 3.6. Never allow other persons to get on the machine or the implement except when the machine or the implement is provided with a seat or a platform for persons to sit or stand on, and only within the capacity specified.
Never allow persons to get on the implement while traveling on roads.
- 3,7 Do not make sharp turns on a slope. It may cause turnover of the tractor.
When climbing up a hill, shift the speed change lever to the most suitable speed. Start moving the tractor as slowly as possible.
When starting to move the tractor on an up-hill slope, be sure that the front wheels do not lift up.
When going down a hill, drive the tractor at slower speed that used to climb up the hill.
While going down a hill, and never try to control the speed only with the brakes; use the engine brake effectively.

6. LOADING ONTO OR UNLOADING FROM A TRUCK.

- 6.1. When loading the tractor onto a truck or a trailer, turn off the truck's engine and apply the parking brakes to the truck or the trailer.
Otherwise, the truck could move and the tractor falls to the ground.
- 6.2. Pay sufficient attention to the safety conditions around the tractor and have it guided by someone to assist the operation.
Never allow other persons to approach the tractor, especially in front of or behind it.
- 6.5. Use ramps with the same or better specifications mentioned below. When the machine is equipped with attachments other than those included in the specifications mentioned below, ask your VITRA dealer for advice.

SPECIFICATIONS OF THE RAMPS.

- Length
More than 4 times the height of the platform of
the truck Width (effective width) more than 35 cm
Capacity (one ramp) more than 1700 kg
Ramps should have anti-skid surfaces.
- 6.6. Always prepare for even the worst, by never allowing other persons near the tractor.

- 6.7. Drive the tractor carefully at the moment the tractor moves from the ramps onto the platform, the angle may chance abruptly.

9. INSPECTION AND MAINTENANCE.

- 9.1. When servicing the tractor or mounting or dismounting an implement, place the tractor on level, hard ground which is sufficiently illuminated, or unexpected accidents may occur.
- 9.3. When servicing the tractor, follow the instructions listed below:
 - Stop the engine.
 - Apply parking brakes.
 - Disengage all PTO.
 - Place all gear shift levers in neutral.
 - Remove the starter key.
 - Lower the implement fully, if equipped.
 If not, your hands or clothes may be caught or sandwiched between.
- 9.4. When servicing the tractor, use proper tools. Using makeshift tools may lead to injuries or poor servicing, which may result in unexpected accidents during operation.
- 9.5. The engine, muffler, radiator, etc. are very hot just after operation, so wait until they cool down sufficiently to avoid burns.
- 9.8. Never remove the radiator cap while the engine is hot or running. Wait until the engine cools down and then relieve the radiator pressure by releasing the radiator cap carefully.

Carelessly pouring cooling water into the heated radiator can cause serious damage to the radiator and the engine. Careless removal of the radiator cap can cause serious injury because of overheated water vapour.
- 9.9. Never fit unauthorized implements or attempt unauthorized modification to the machine.
- 9.10. Be sure to reinstall the removed safety covers in place as exposed dangerous parts may cause serious injury.

SAFE OPERATION:

- 9.11. Avoid high-pressure fluids. Escaping fluid under pressure can penetrate the skin and cause serious injury, so keep hands and body away from pin holes and nozzles ejecting such fluids. Be sure to consult your dealer about any the hydraulic and fuel injection system troubles.

When checking for leaks, get sure to take the proper precautions and proper protective clothes. If any hydraulic fluid is injected accidentally into the skin, it must be removed within a few hours by a doctor familiar with this type of injury.

- 9.12. When servicing wheels and tires, the tractor and/or implement must be supported on suitable blocks or stands. Not a hydraulic jack. Do not attempt to service a tire unless you have the proper equipment and experience to perform the job. Always remove attachments before jacking the machine. Have the work carried out by your VITRA dealer. When seating tire beads onto rims, never exceed the maximum inflation specifications specified on the tire. Inflation beyond this maximum pressure may damage the tire, or even the rim, with dangerous, explosive force. If tire have deep scratches, cuts or punctures, it must be replaced by qualified personnel as soon as possible. Wear suitable protective clothing, gloves, eye/face protection.

10. MAINTENANCE OF THE ELECTRIC SYSTEM.

- (1) When servicing the electric system, always be sure to stop the engine first. Otherwise your hands or clothes may be caught in or sandwiched between rotating parts.
- (2) Before dismantling electric parts, be sure to disconnect the earth battery cable (-), or you may get an electric shock or be injured by sparks.
- (3) Loose electric terminals or connectors may not only lower electrical performance but also cause short circuit or leakage of electricity, which may lead to a fire. Promptly repair or replace damaged wiring.

- (4) Remove chaff of dust from the battery, wiring, muffler, or engine. Otherwise it could result in a fire.

10.2. TO HANDLE THE BATTERY.

- (1) When working around the battery, avoid smoking. The battery generates explosive hydrogen and oxygen gases when being charged. Keep the battery away from sparks or open flames.
- (2) The battery should be inspected before starting the engine. Be careful not to touch the electrolyte when removing the vent plugs. If the battery electrolyte makes contact with the skin or clothing, wash it off immediately with water. Consult a doctor.
- (3) When replacing or inspecting the battery, always stop the engine and turn the main switch off, or electrical parts may be damaged or unexpected accident may occur.
- (4) When disconnecting the battery cables, disconnect the earth cable (-) first. When connecting the battery cables, connect the positive cable (+) first. Disconnecting or connecting in wrong order may lead to a short circuit or sparks.

10.3. TO HANDLE BOOSTER CABLES.

When using booster cables, pay attention to the following items for safe operation:

- (1) Before connecting cables, remove the vent plugs. (If any.) This will lower the force in case of explosion.
- (2) Before connecting cables, be sure to stop the engine. Otherwise unexpected accidents may occur.
- (3) Use booster cables with sufficient electrical capacity. A cable of inadequate capacity will cause generation of heat, which may lead to a fire.

SAFE OPERATION:

12. STORAGE.

- 12.1. Never cover a hot machine just after operation with a tarpaulin or the like, or the heated engine and related parts may cause a fire.
- 12.2. Before storing the tractor for a long period of time, disconnect the battery cables to prevent them, in case they are gnawed by a animal, from causing a short circuit, which may lead to a fire. When disconnecting the cables, disconnect the negative (-) cable first.

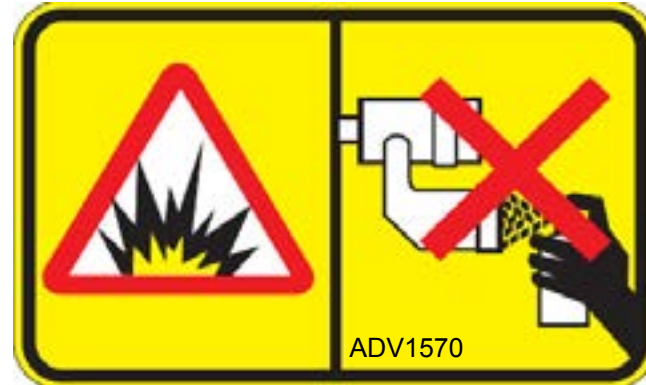
Safe storage of dangerous objects

- When storing dangerous implements, take appropriate safety measures to prevent accidents by covering with tarpaulin.
- Store fuel in a safe place with caution signs such as "PREVENT FIRE" or "INFLAMMABLE".
- All inflammable must also be stored in a safe, fire resistant location.

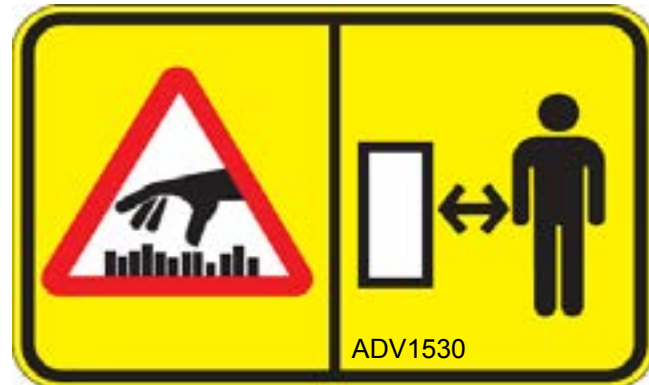
WARNING LABELS:



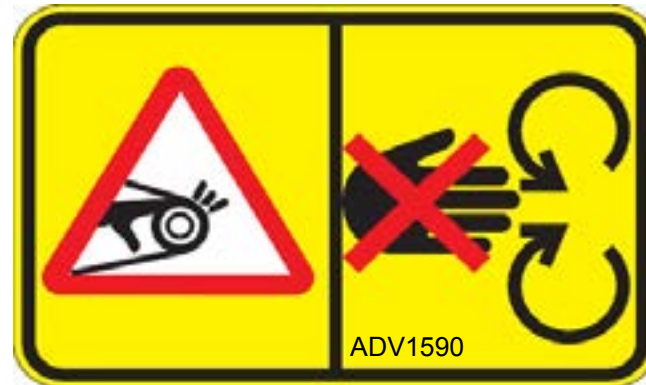
WARNING: ROTATING PARTS:
(Code No. ADV1510)



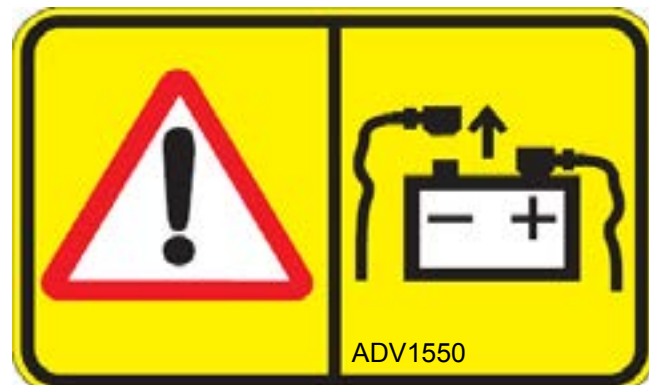
WARNING: RISK OF EXPLOSION
(Code No. ADV1570)



IMPORTANT: READ USER MANUAL
(Code No. ADV1530)



WARNING: ROTATING PARTS:
(Code No. ADV1510)

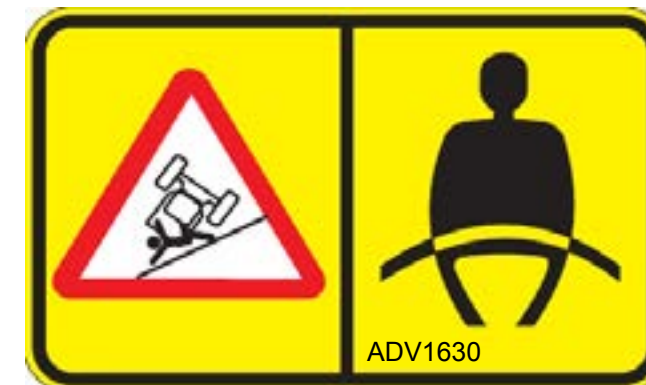


WARNING: DISCONNECT BATTERY
(Code No. ADV1550)

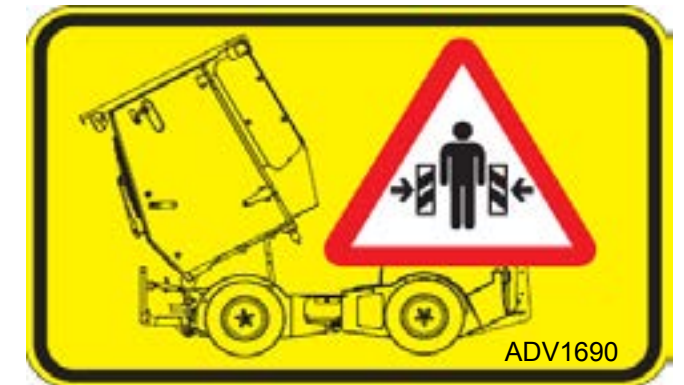


DANGER: RISK OF EXPLOSION AND BURNS
(Code No. ADV1610)

WARNING LABELS:



WARNING: RISK OF OVERTURNING
(Code No. ADV1630)



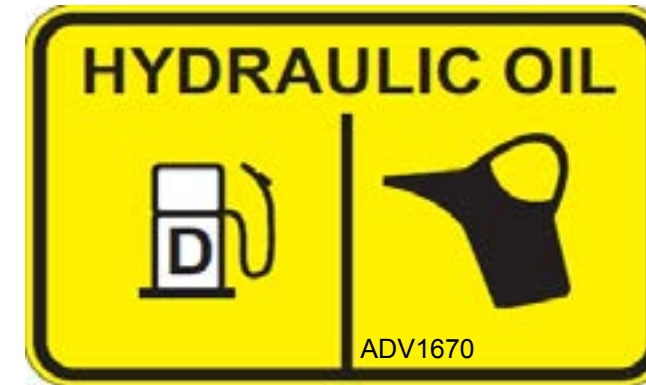
Danger:
(Code No. ADV1690)



WARNING: HIGH PRESSURE STEAM AND HOT
WATER
(Code No. ADV1650)



Danger:
(Code No. ADV1710)



FILLING HYDRAULIC OIL:
(Code No. ADV1670)



ADV1730
(Code No. ADV1730)

GENERAL INFORMATION:

(1) BEFORE OPERATION

- (a) Always be safety/conscious in selecting clothes to wear and suitable tools to use.
- (b) Before disassembly, be sure that you familiarize yourself with the assembled condition for subsequent reference in reassembly.
- (c) Keep parts and tools in proper order during operations.
- (d) When servicing electrically live parts, be sure to disconnect the negative battery terminal.
- (e) To prevent oil or water leaks, use the liquid gasket as required.
- (f) When reassembling disassembled parts, discard used gaskets, O-rings, or oil seals and install new ones.
- (g) When lifting up only the front or rear part of the tractor, be sure to wedge the grounded wheels.
- (h) When the tractor is jacked up, be sure to support the entire tractor with something like a stand. Lifting it up with a jack only is a dangerously unstable procedure.
- (i) When replacing parts, use authorized, genuine VITRA parts only. VITRA assumes no responsibility for accidents, operating problems or damage caused by the use of imitation parts. Also, the use of unauthorized parts will result in poor machine performance.

(2) PRECAUTIONS TO BE FOLLOWED WHEN INSTALLING COMMON PARTS.

(1) Roller or ball bearings.

- (a) When a bearing is fitted in by the outer ring, use an installer, which is specially designed to push only the outer ring and vice versa.
- (b) The installer must be designed to install the bearing on the shaft in a parallel position.

- (c) When installing a bearing, which appears the same on both sides, install it so that the face, which has the identification number faces in a direction for easy visual identification. All the bearings, which are to be installed in transmission case should be placed so that their identification number faces outward.
- (d) If a shaft or a hole where a bearing is to be installed has a stopper, the bearing should be pushed in completely until it is seated against the stopper.
- (e) Installed bearings should turn smoothly.

(2) Oil seals.

- (a) Oil seal installer should be designed to avoid deformation the oil seals.
- (b) During installation, be careful not to damage the lips, and assure that it is pushed in parallel to the shaft or hole.
- (c) When oil seals are installed, there should be neither turnover of the lips nor dislocation of the springs.
- (d) When a multi-lip seal is installed, the grooves between lips should be filled with grease, not adhesive.
- (e) Use a lithium-based grease.
- (f) There should be no oil or water leaks through the installed oil seals.

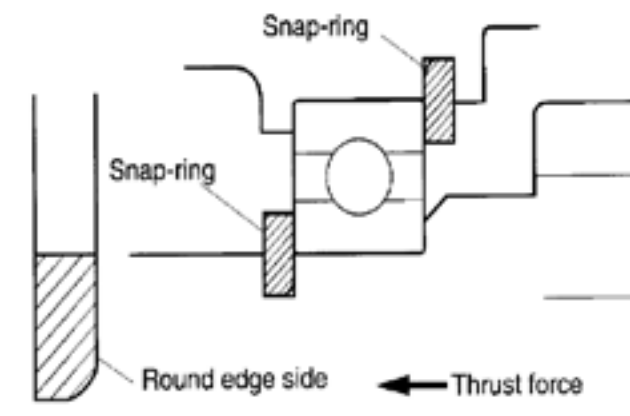
(3) O-rings

- (a) O-rings should be coated with grease before installing.
- (b) Installed O-rings should have no slack or twist.
- (c) Installed O-rings should maintain proper air tightness.

GENERAL INFORMATION:

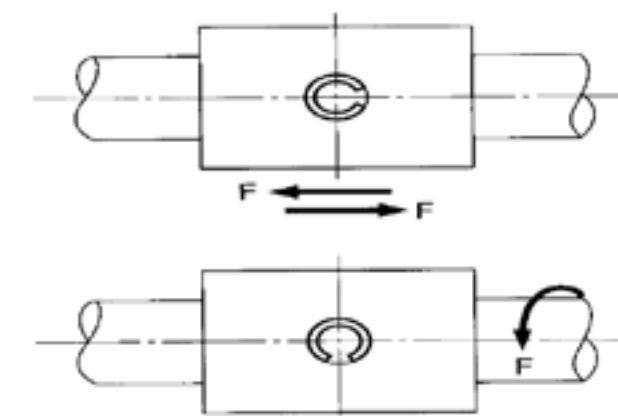
(4) Snap-rings

- (a) Snap-ring installers should be designed to avoid permanent deformation the snap-rings.
- (b) Installed snap-rings should be seated securely in the groove.
- (c) Be careful not to overload the snap-ring to the extent that it is permanently deformed.
- (d) How to install the snap-ring:
When installing a snap-ring, install it as shown in the figure with its round edge side turned toward the part to be retained. This round edge is formed when the snap-ring is pressed out.



(5) Spring (roll) pins.

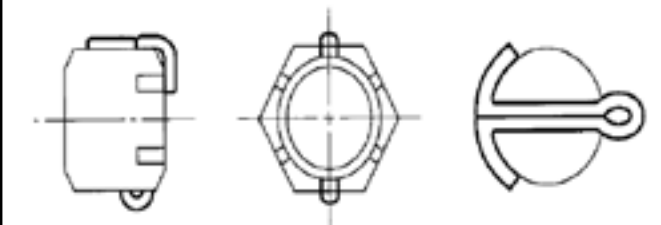
- (a) Spring pins should be driven in properly and tightly.
- (b) Spring pins should be installed so that their seams should face the direction from which the load is applied.



- (c) The roll pins installed in a transmission or other parts where much force is applied should be retained with wire.

(6) Cotter pins

- (a) When installed, cotter pins should be bent securely at the ends as shown in the figure.



(7) Bolts and nuts

- (a) Special bolts are installed at several locations, so be sure not to interchange them other bolts.
 - (b) Bolts and nuts should be tightened to their specified torque with a torque wrench.
 - (c) When locking the bolts or nuts with wire or a lock washer, be sure to wind the wire paying sufficient attention to its winding direction and bend the lock washer for secure locking.
 - (d) When locking bolts and nuts with an adhesive, apply the adhesive on the thread and tighten securely.
 - (e) Apply an adhesive (THREE BOND TB 1104) to parts through which there is any possibility of oil leaks, such as stud bolts and tapped-through parts.
 - (f) Each lock nut must be tightened securely.
 - (g) When tightening bolts and nuts, refer to the tightening torque table.
- ### (8) Grease fitting.
- (a) After installation, each grease fitting should be filled with grease.

GENERAL INFORMATION:

- (b) When installing grease fittings of types B and C, be sure to turn the fitting tips in a direction that will provide easy access for a grease gun.
- (9) Other precautions.
- (a) Be sure not to damage any finished surfaces or parts.
- (b) Always refrain from forcing installation.
- (c) Each lever knob should be installed coated with an adhesive (SUPER THREE CEMENT TB1702)
- (d) Each contact surface should be coated with an adhesive (THREE BOND TB1215) and tightened evenly with bolts. Adhesive coated surfaces should be installed within 30 minutes after application of the adhesive.
The contact surfaces should be flawless and free from foreign matter, and especially from grease before application of the adhesive.
- (e) Precautions for applying adhesives
The surface or the thread where an adhesive is to be applied should be completely free of chips and oil.
The surface or the thread where an adhesive is to be applied should be completely free of oiliness.

TECHNICAL DATA:

Type:	Dim:	2030 Quantity:	2040 Quantity:
Engine.		Caterpillar C1.1	Caterpillar C1.6
Performance.	kw/HK	18 kw / 29 HK 3600 r/min.	25 kw / 36 HK 3000 r/min.
Displacement.	cm3	1131	1598
High Idle Speed.		3400	3000
Max Torque.	N.m	70 / 2300	94 / 1800
Compression Ratio.		23:1	23.1
Fuel Tank.	L	28	28
Engine Crankcase with Filter.	SAE	10-40 CD/CE	10-40 CD/CE
Quantity.	L	* 4.4	5.6
Diesel fuel quality.		ASTM D975	ASTM D975
Cooling system.		Autosupra G12	Autosupra G12
Quantity.	L	6	6.5
Valve Clearance (Cold).	mm	0,2	0.2
Charging. (Option)	Amp.	40 (60)	40 (60)
Battery.	Amp.	450	450
Transmission.		Hydrostatic Transmission.	Hydrostatic Transmission.
Wheel Motor.		4	4
Speed.	Km:	0-24	0-28
Working hydraulics.		Gear Pump.	Gear Pump.
Max Capacity.	l/min.	50	50
Max pressure.	Bar.	200 Bar.	200 Bar.
Output.	l/min.	43L ved 180 Bar.	44L ved 180 Bar.
Hydraulic tank.	L	25	25
Oil type.		OK hydraulik HVI 46	OK hydraulik HVI 46
Manoeuvre Hydraulics.		Gear Pump.	Gear Pump.
Capacity.		14 l/min v.140 Bar	14l/min v.140 Bar
Hydraulic outlet. Rear		1 double with lock + 1 Small PTO.	1 double with lock + 1 Small PTO.
Hydraulic outlet. Front		1 double with lock + 1 Small PTO.	1 double with lock + 1 Small PTO.

Type:	Dim:	Quantity:	Quantity:
Weights and measures.		Specifications are subject to change without notice	Specifications are subject to change without notice
Length.	mm.	2745	2745
Wide std.	mm.	1031	1031
With Wide Wheels.	mm.	1150	1150
Height.	mm.	1993	1993
Clearance.	mm.	129	129
Turning Radius.	mm.	907	907
Weight.	Kg.	1050	1100
Total weight.	Kg.	1750	1750
Tire sizes.			
Standard.		23/10,5-12 6 lag	23/10,5-12 6 lag
Tire pressure. unloaded.	Bar.	1,5	1,5
Color.			
Engine cover.	Ral	5010 Blue	5010 Blue
Cabin.	Ral	5010 Blue	5010 Blue
Chassis color.	Ral	7021 Dark Gray	7021 Dark Gray
Rim color.	Ral	9001 White	9001 White

IDENTIFICATION:



Type plate is placed under the roof in the cabin.

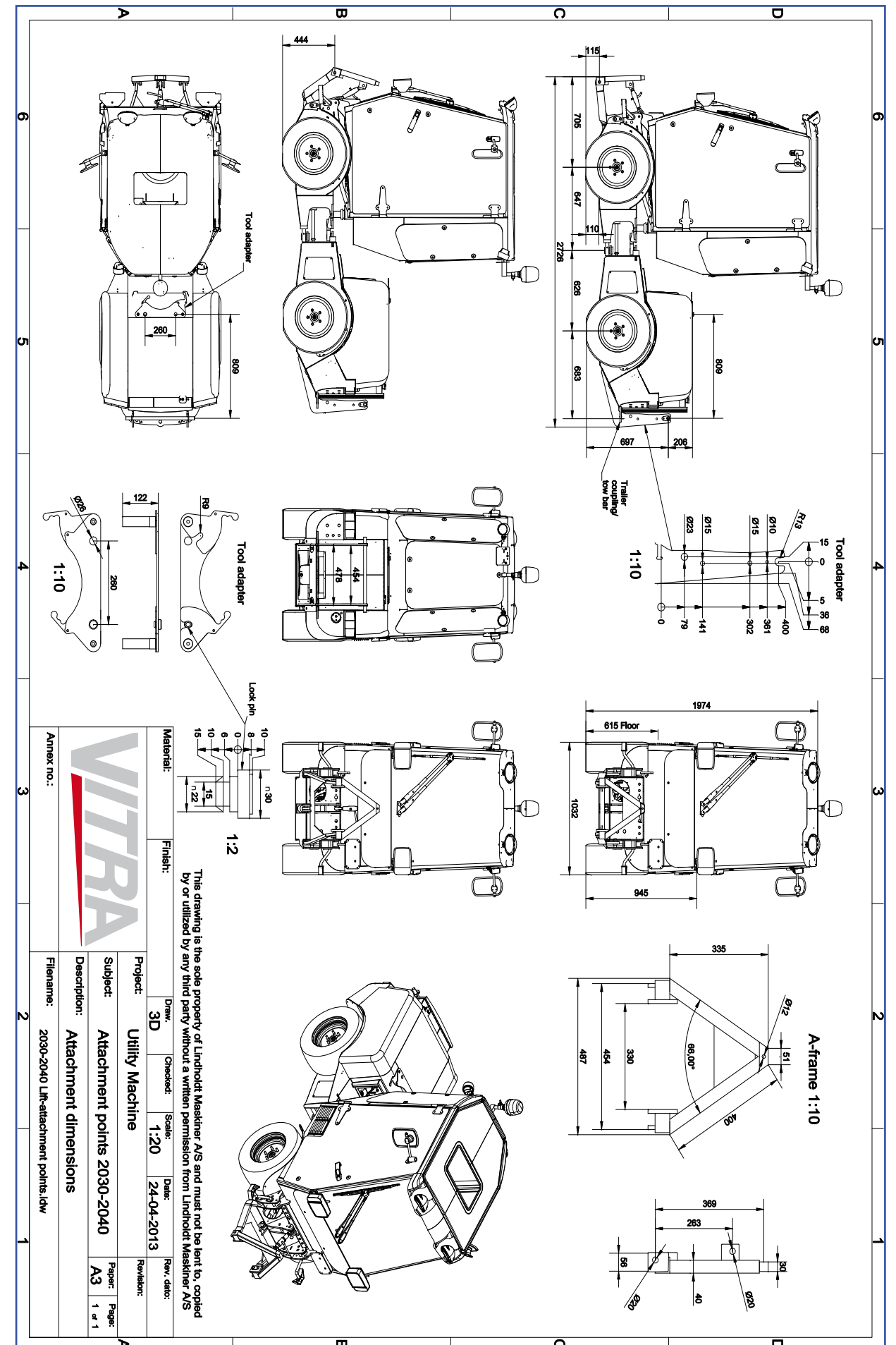


Front frame No. Placed in the top plate right side pivot point.

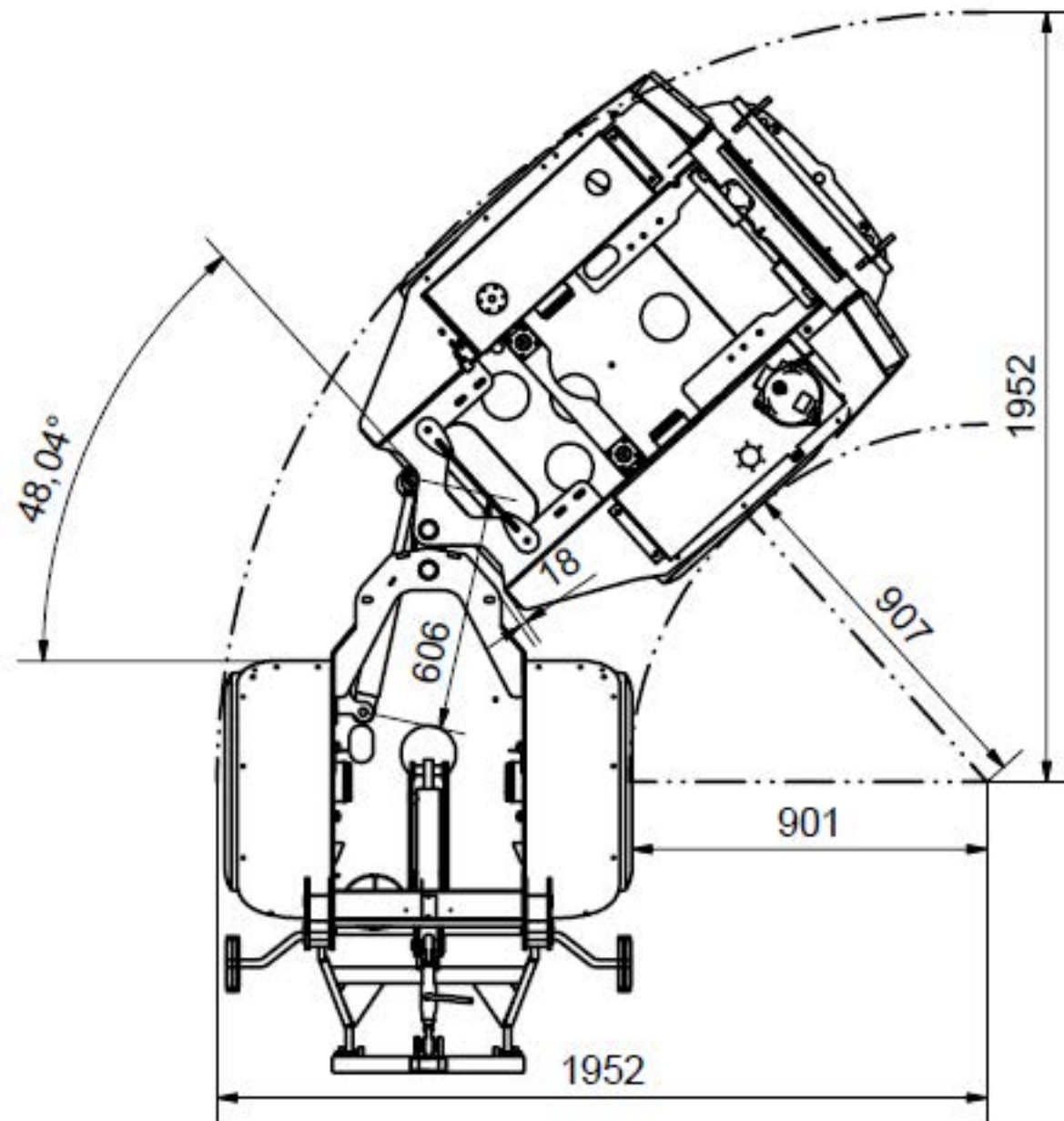


Front frame No. Placed in the top plate right side pivot point.

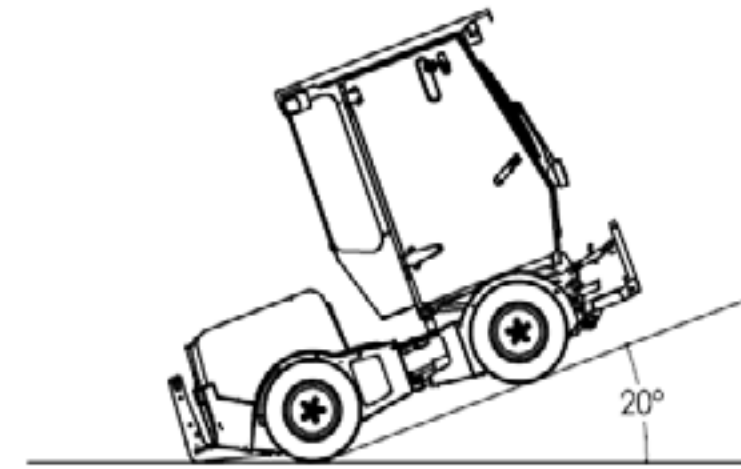
DIMENSIONS:



TURNING RADIUS:



CLIMBING ABILITY:

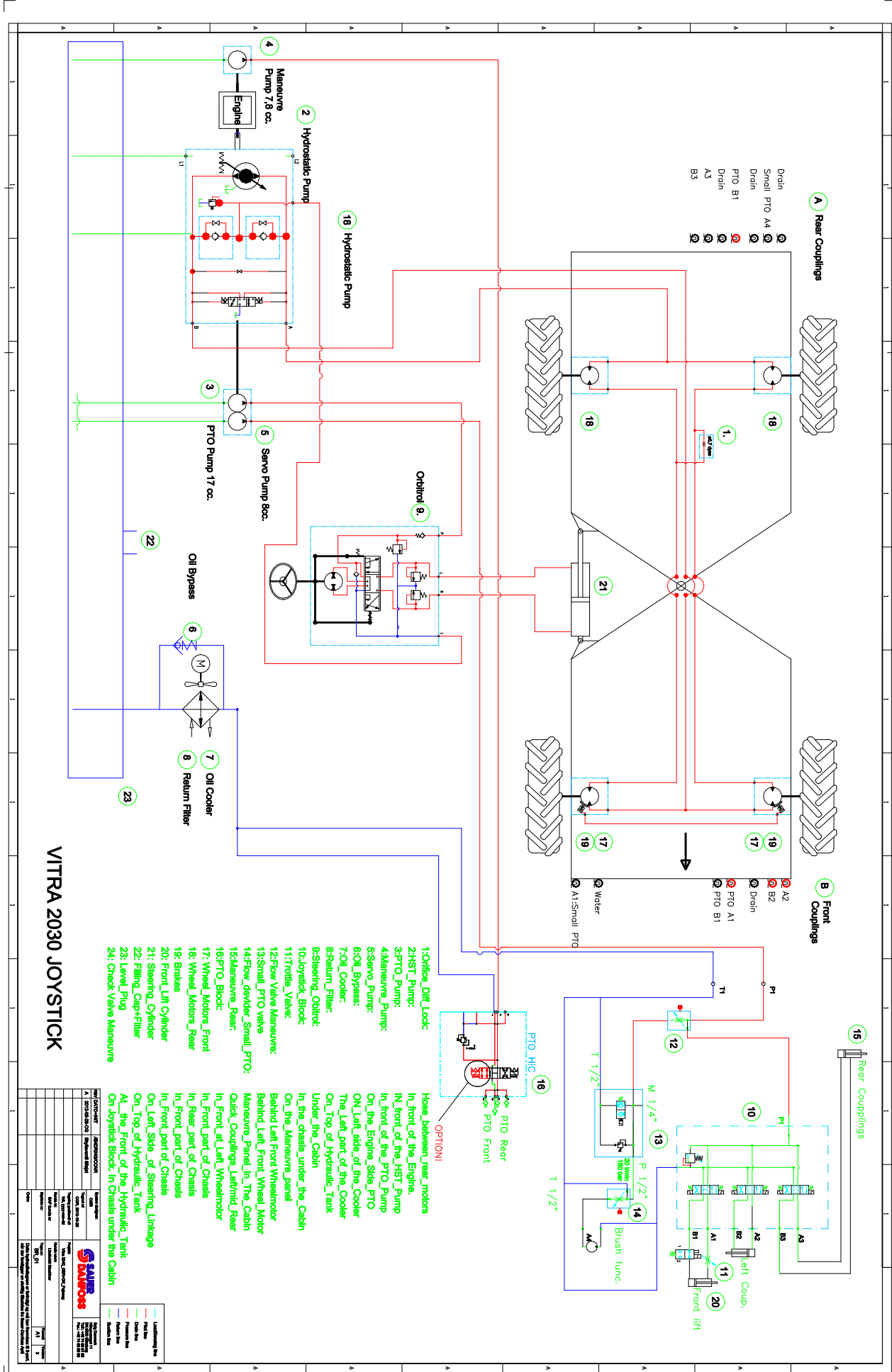


Empty 1100 kg

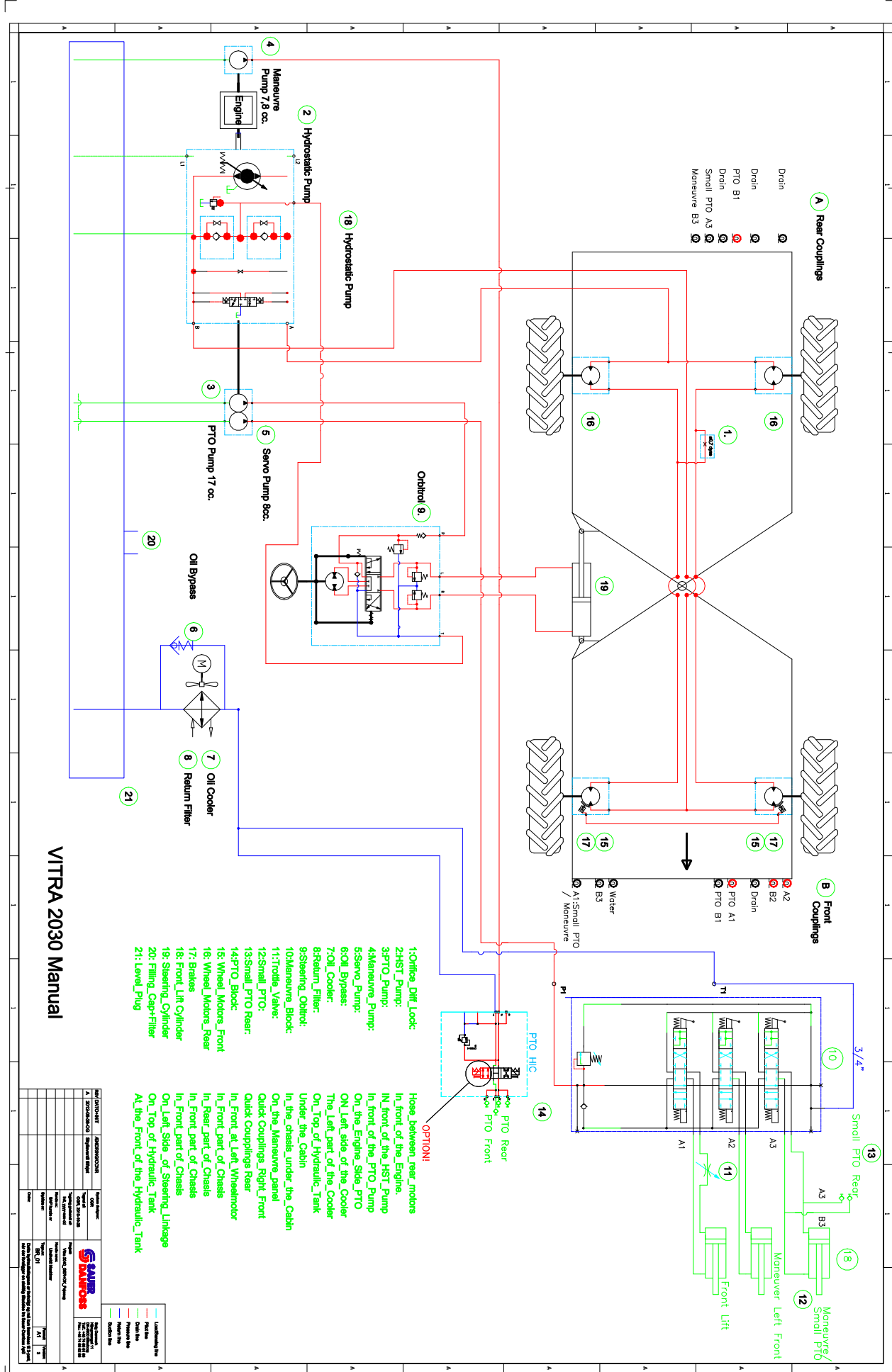


Full load 1800 kg

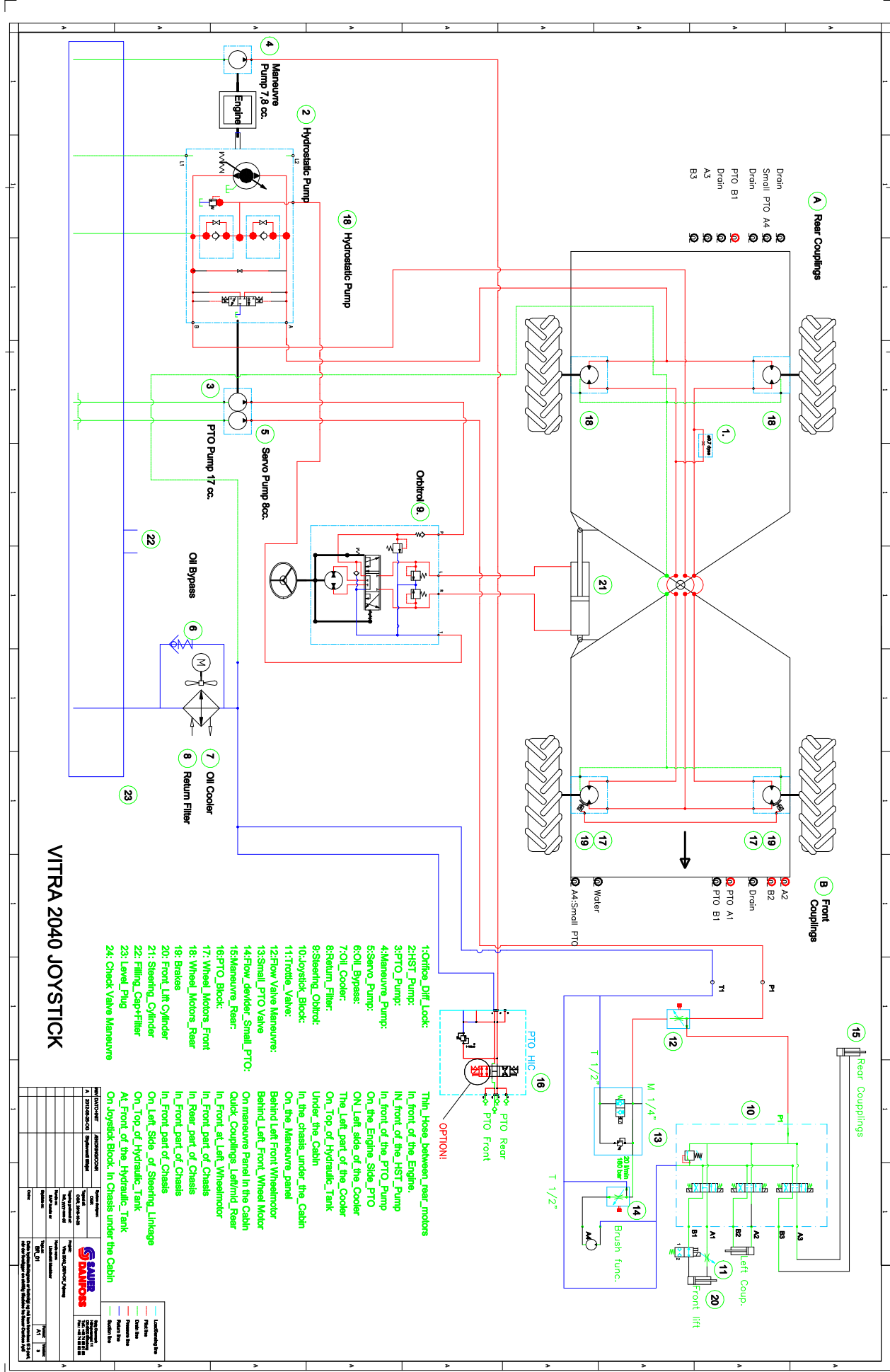
HYDRAULIC SYSTEM: 2030 JOYSTICK



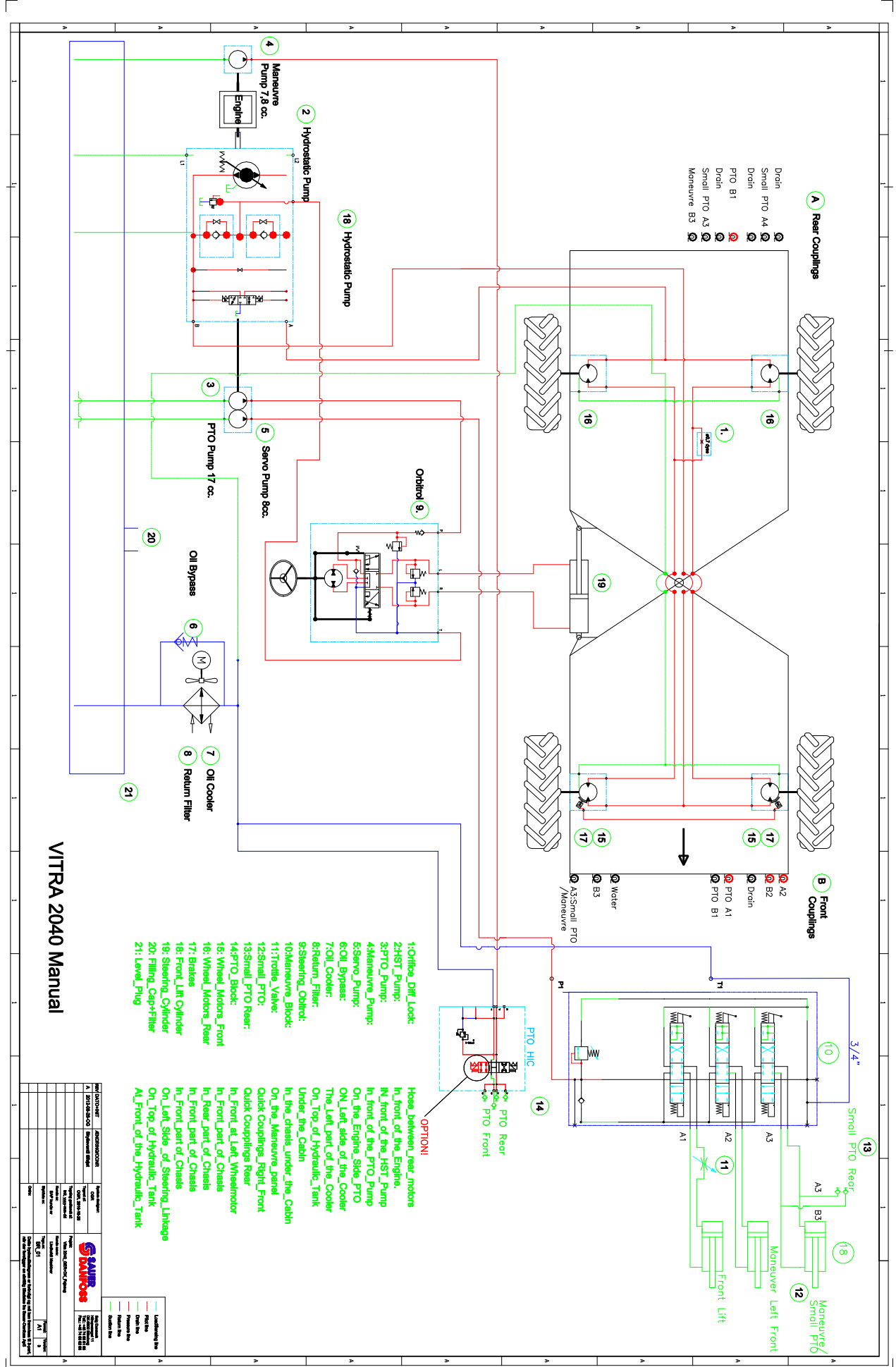
HYDRAULIC SYSTEM: 2030 MANUEL



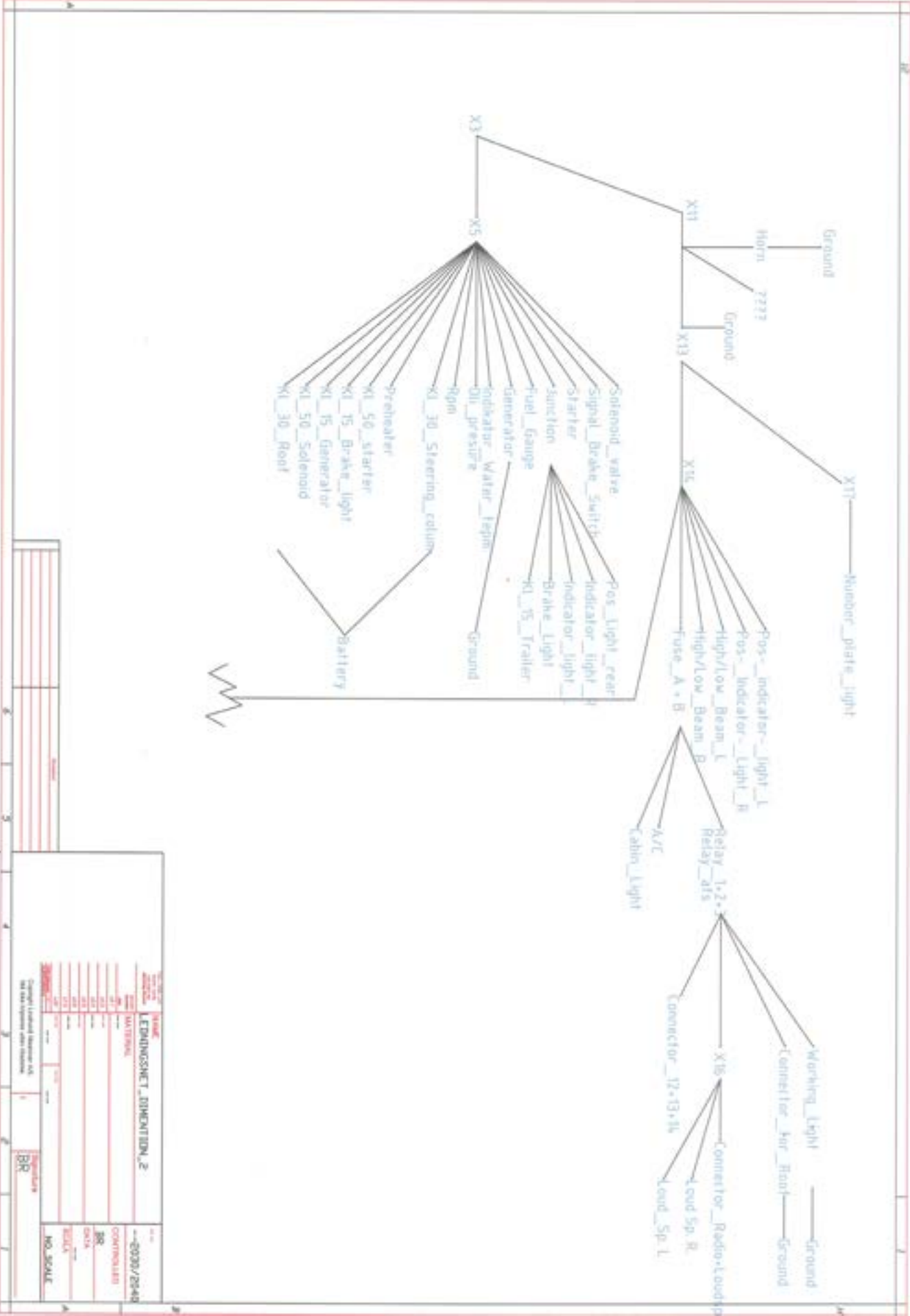
HYDRAULIC SYSTEM: 2040 JOYSTICK



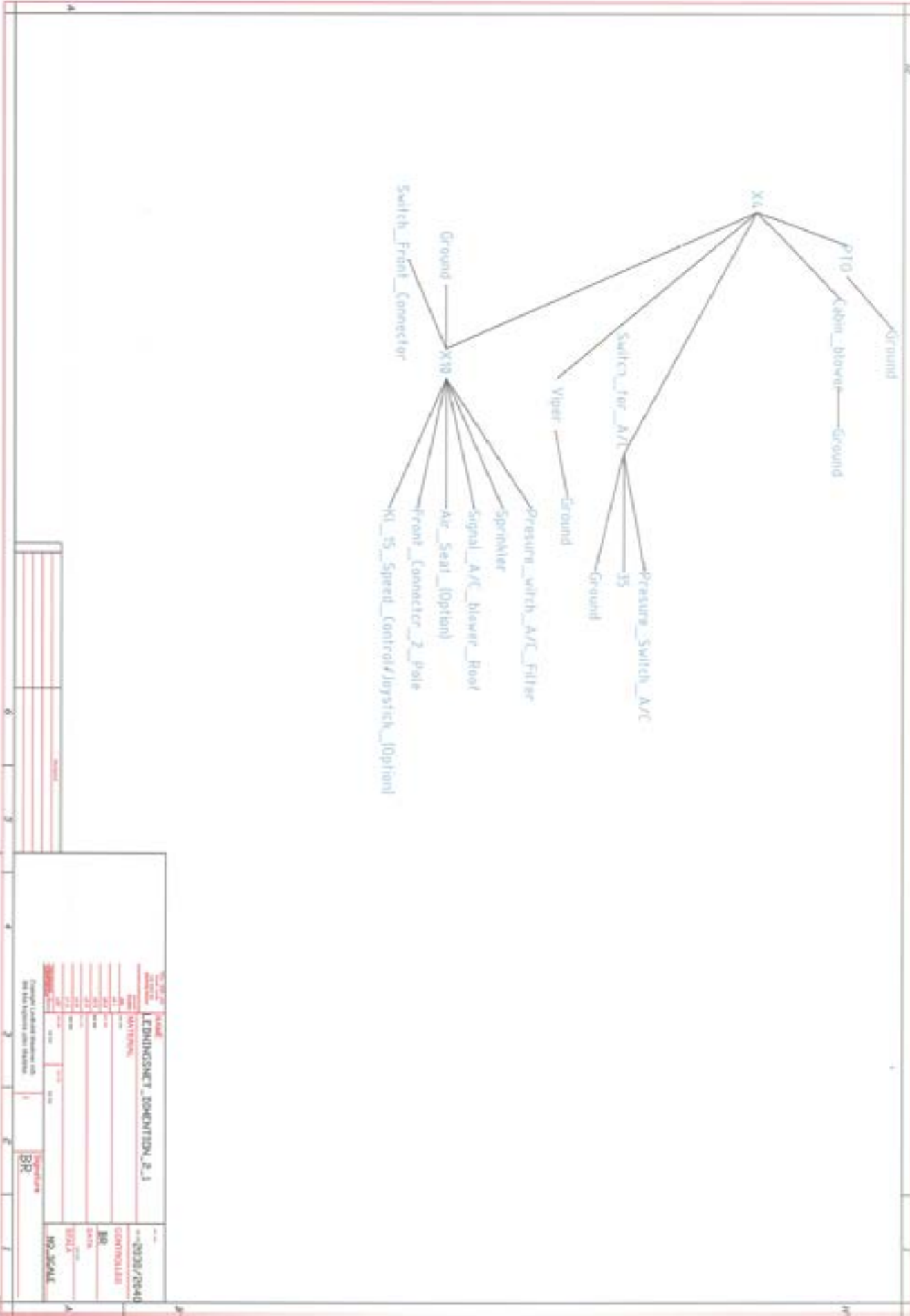
HYDRAULIC SYSTEM: 2040 MANUEL



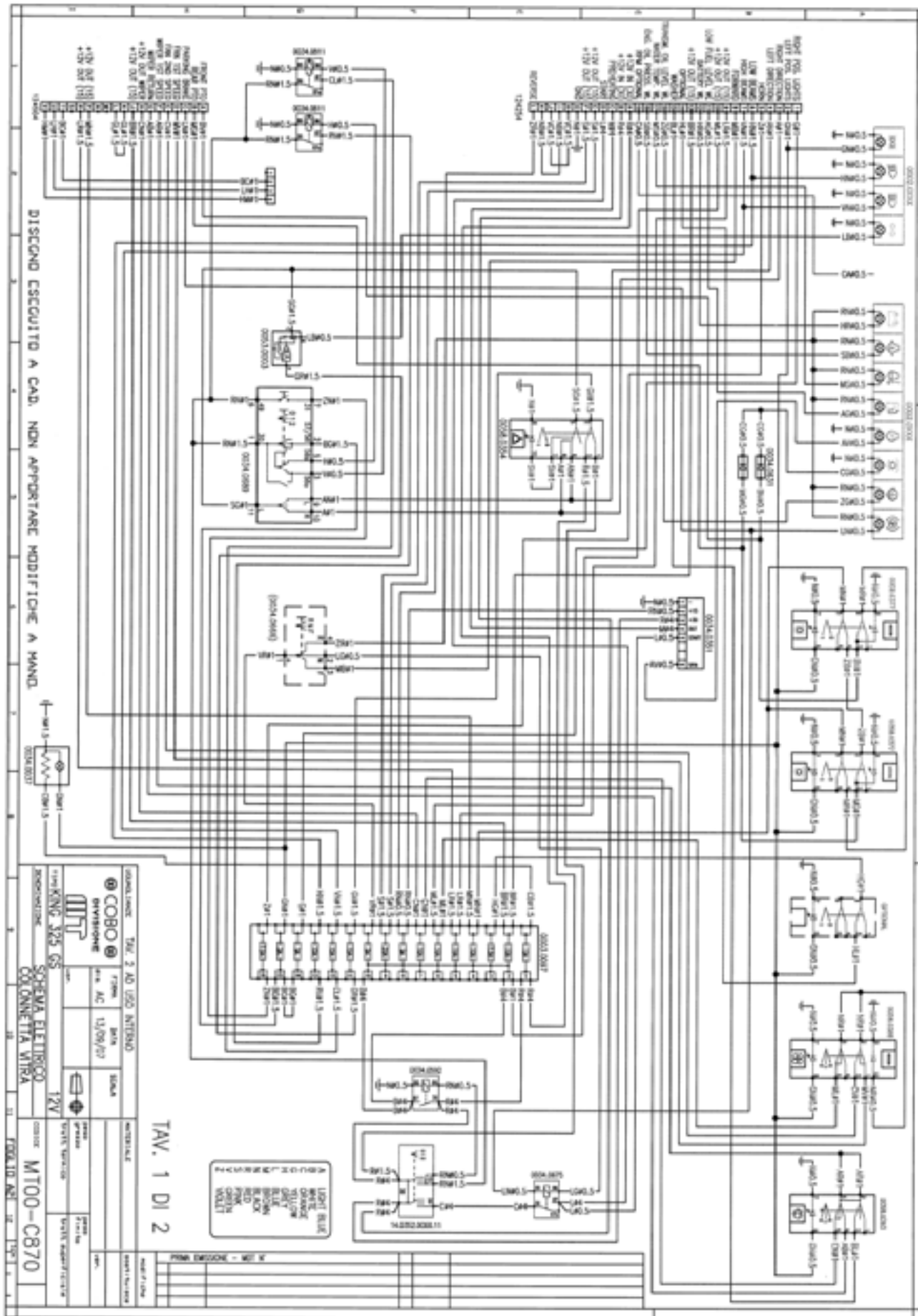
ELECTRICAL SCHEME:



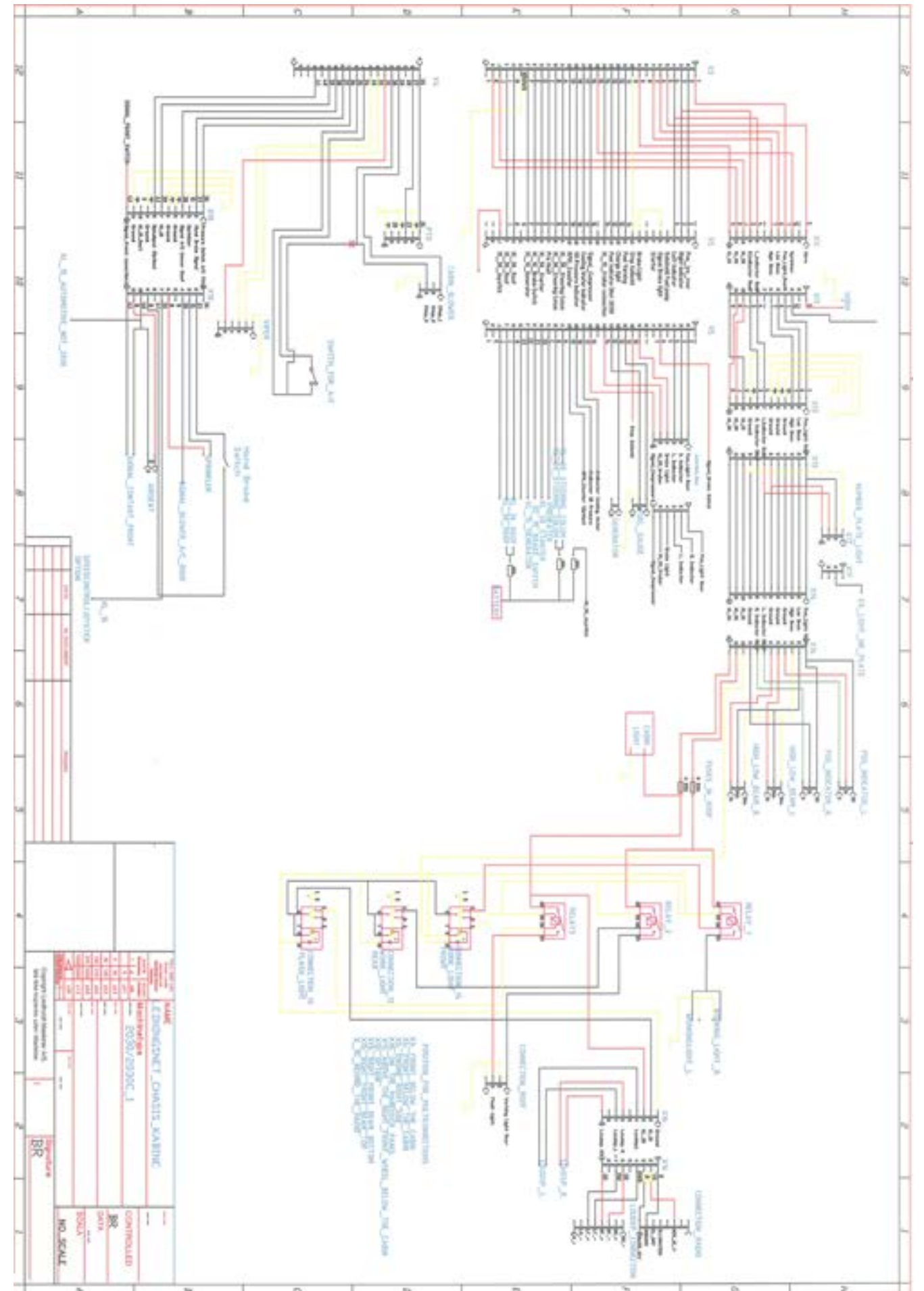
ELECTRICAL SCHEME:



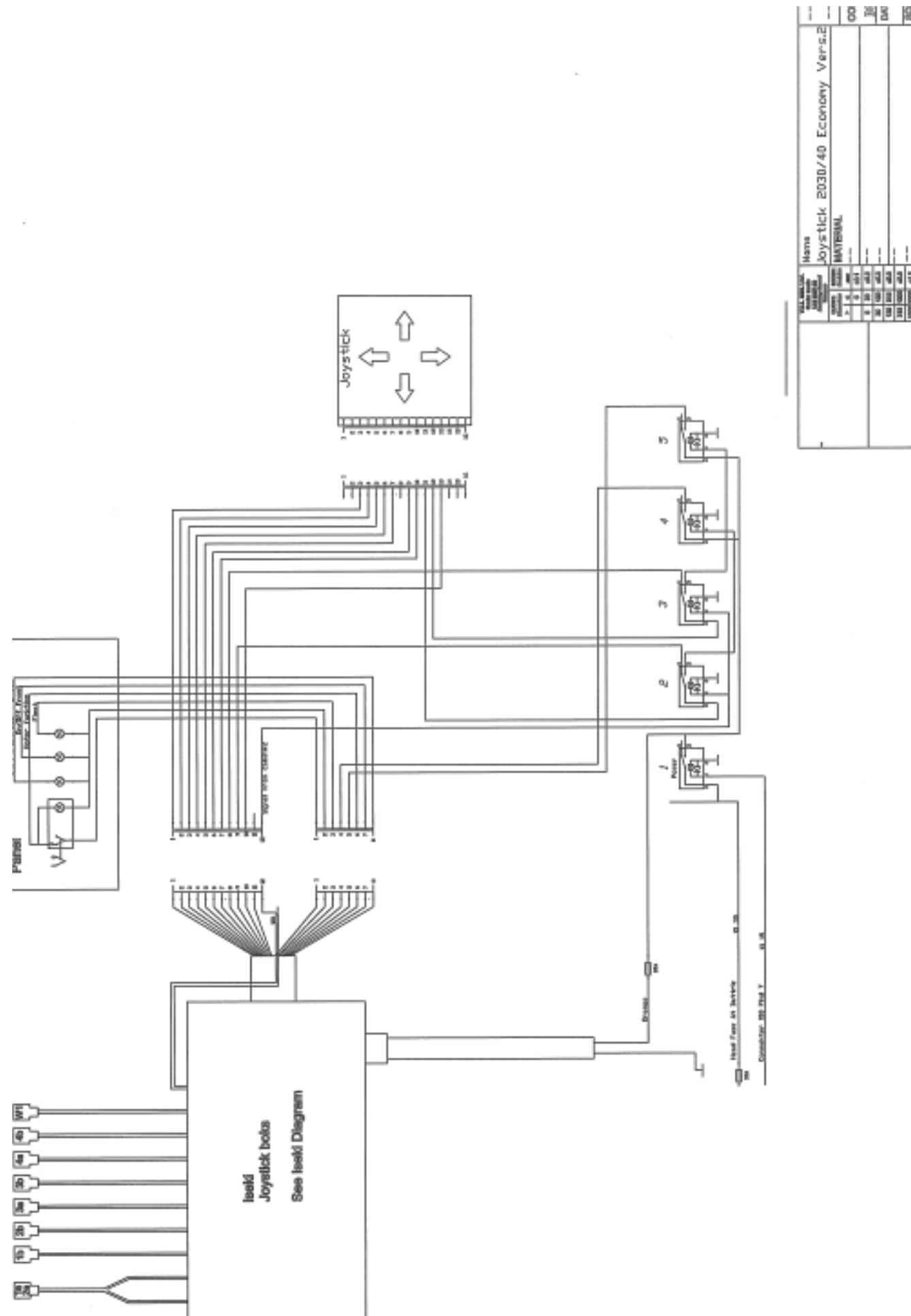
ELECTRICAL SCHEME:



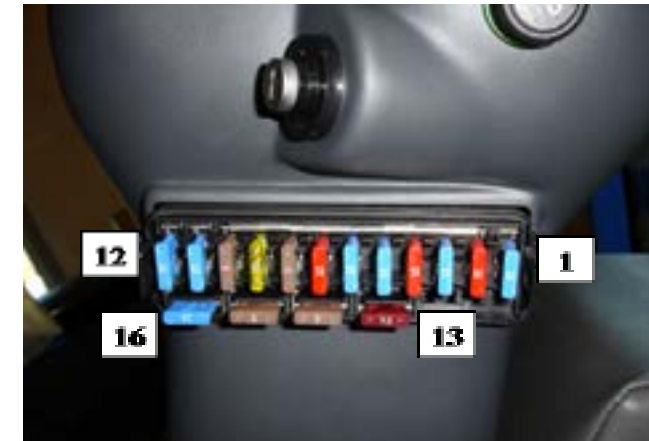
ELECTRICAL SCHEME:



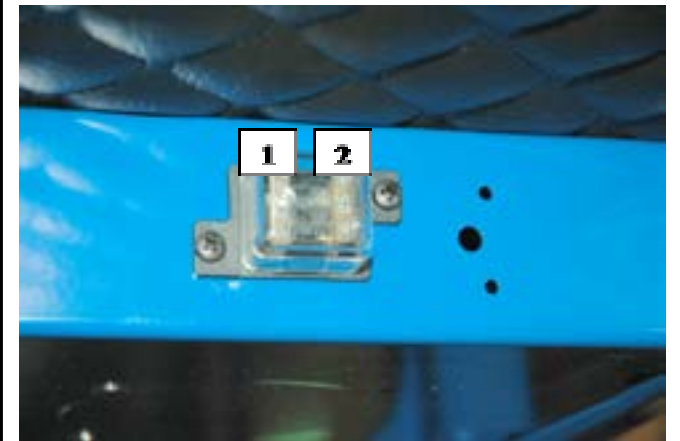
ELECTRICAL SCHEME:



FUSES:

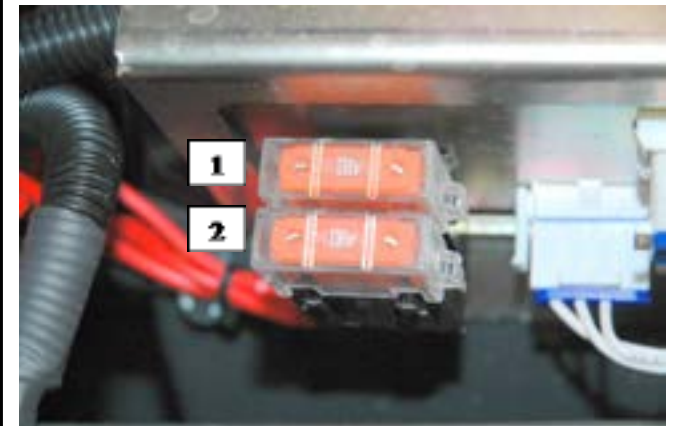


- (1) 15 Amp. Instrument lights.
- (2) 10 Amp. Kl. 15 Hand brake and fuel - A / C.
- (3) 15 Amp. Switch for 7 pole Trailer Connector.
- (4) 10 Amp. PTO. A/C - Joystick kl 15.
- (5) 15 Amp. Driving seat, and cabin roof.
- (6) 15 Amp. Stop Solenoid and Blowers.
- (7) 10 Amp. Wiper + sprinklers.
- (8) 5 Amp. Engine preheating.
- (9) 20 Amp. Brake lights and Alternator Kl.15
- (10) 5 Amp. Reverse contact. (Optional)
- (11) 15 Amp. Rotating beacon.
- (12) 15 Amp. High beam.
- (13) 15 Amp. Low beam.
- (14) 5 Amp. Position light.
- (15) 5 Amp. Position light.
- (16) 7,5 Amp. Horn.



Fuse box (upper panel)

1. Working light.
2. Hazard + Aux.



Main fuses.

1. Upper panel.
 2. Steering column.
- The panel are placed under the fuel tank.



Main fuses.

1. Upper panel.
 2. Steering column.
 3. A/C and joystick.
- The panel are placed under the fuel tank.

TORQUE:

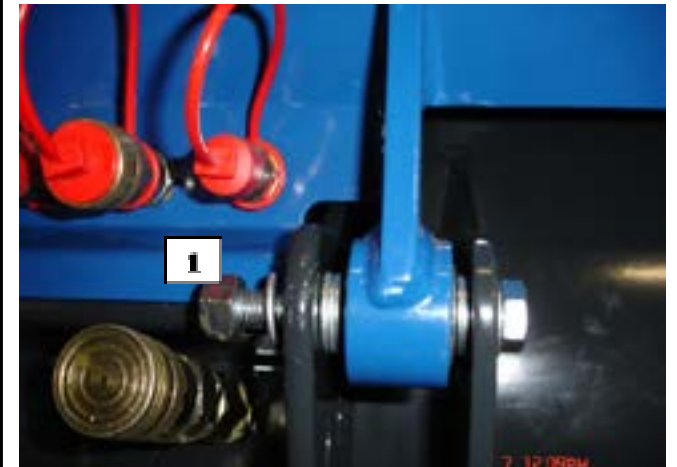
Dim:	8.8 bolts und Nuts N-m (kgf-cm)	10.9 bolts und Nuts N-m (kgf-cm)	Remark:
M5	2.9 - 3.9 (0,30 - 0,40)	4.9 - 5.9 (0,50 - 0,60)	
M6	5.9 - 7.8 (0,60 - 0,80)	8.8 - 10.8 (0,90 - 1,10)	
M8	12.8 - 17.7 (1,30 - 1,80)	19.6 - 26.5 (2,00 - 2,70)	
M10	19.6 - 29.4 (2,00 - 3,00)	44 - 54 (4,50 - 5,50)	
M12	49 - 59 (5,00 - 6,00)	74 - 88 (7,50 - 9,00)	
M14	69 - 78 (7,00 - 8,00)	98 - 118 (10,00 - 12,00)	
M16	98 - 118 (10,00 - 12,00)	118 - 137 (12,00 - 14,00)	
M18	118 - 137 (12,00 - 14,00)	157 - 177 (16,00 - 18,00)	
M20	147 - 167 (15,00 - 17,00)	186 - 206 (19,00 - 21,00)	

Location:	Loctide	Dim:	N-m (kgf-cm)
Nut center bolt.	x	M35	300 (30)
Centre Nut hub.		M25	200 (20) + to nearest hole
Bolts in the anchor plate.	x	5/16x20	35 (3,5)
Bolt brake arm.	x	M8	40 (4)
Bolts in the flywheel.	x	5/16x20	55 (5,5)
Hydraulic Motor on diesel.		M10	60 (6)
Bolts on HST.	x	M12	60 (6)
Bolts on Tandem Pump.	x	3/8 unc	50 (5,5)
Wheel nuts.		M14	120 (12)

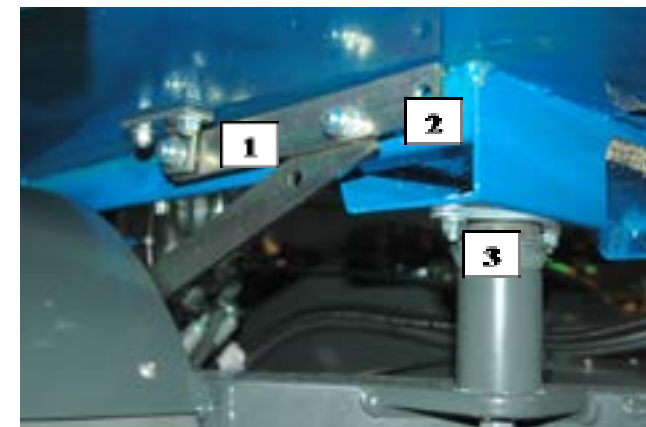
ACCESS TO MAIN COMPONENTS:



1. The front lift must be lowered before tilting the cabin.
(Danger of damaged of the lower Windshield)



1. Loosen the front cabin suspension before tilting the cabin.



1. The safety brackets must be used when tilting the cabin.
2. Hole for safety bolt.
3. Rear cabin mounts.



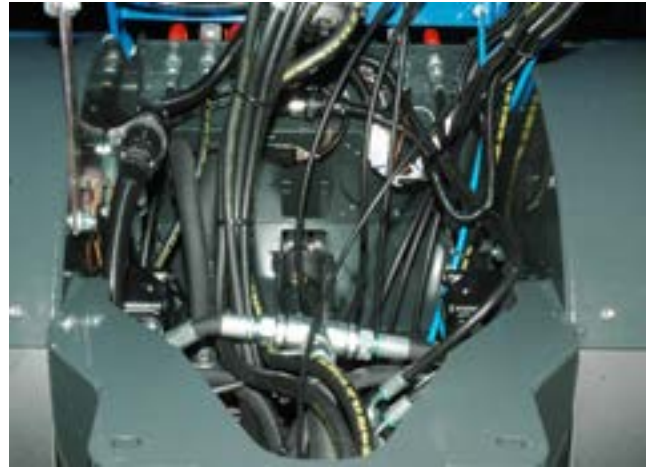
1. Safety bolt.



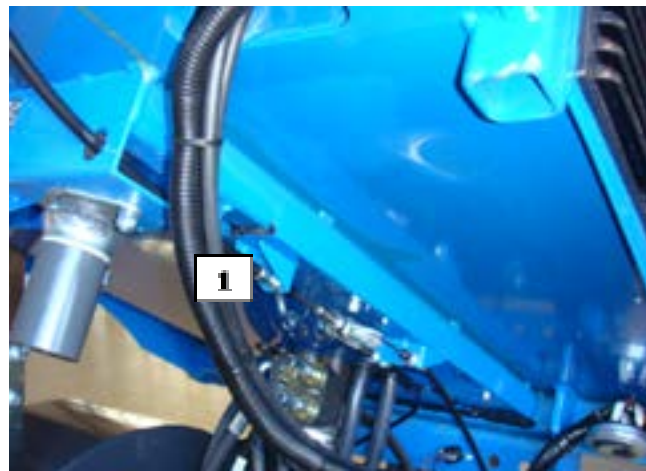
Danger.

Before working on the cabin, the safety bolt must be inserted.

FRONT CHASSIS:



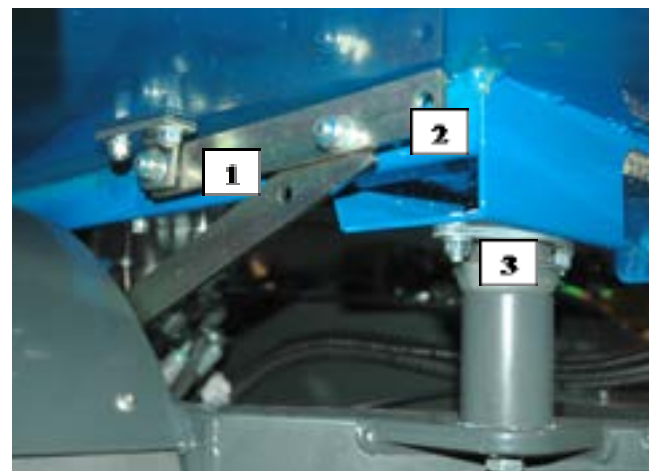
1. It is highly recommended that you clean out all dirt under the cabin you start to work on the Machine. To prevent dirt into the Hydraulic System during Maintenance or repair.



1. Prior to lowering the Cabin, make sure that cables and wiring are in their correct places.



1. It is important to ensure that the two rear suspension returns properly into place.



1. The safety brackets must be used when tilting the cabin.
2. Hole for safety bolt.
3. Rear cabin mounts.

REMEMBER TO TIGHTEN THE SUSPENSION. IT IS VERY DANGEROUS TO DRIVE IN THE MACHINE IF THE REAR SUSPENSION IS UNSECURED.



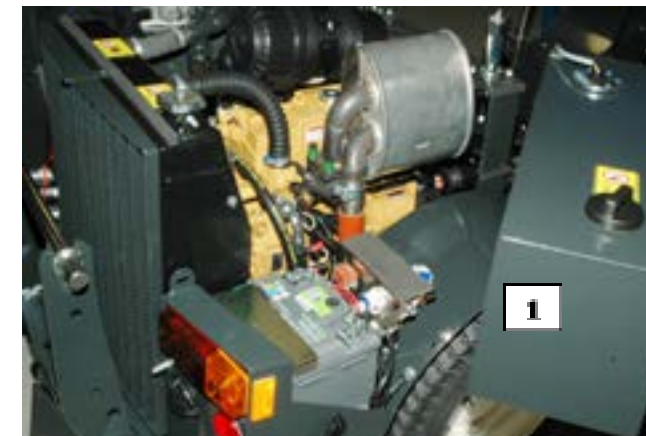
Danger.

Before working on the cabin, the safety bolt must be inserted.

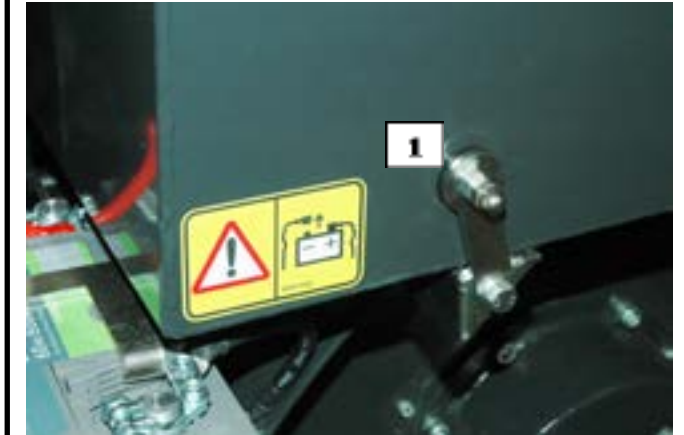
REAR CHASSIS:



1. Engine access by removing the engine cover. Unlock 1 to 3 before removing the covers.



1. The fuel tank is hinged and can be turned out to ensure better access to the Engine Compartment.



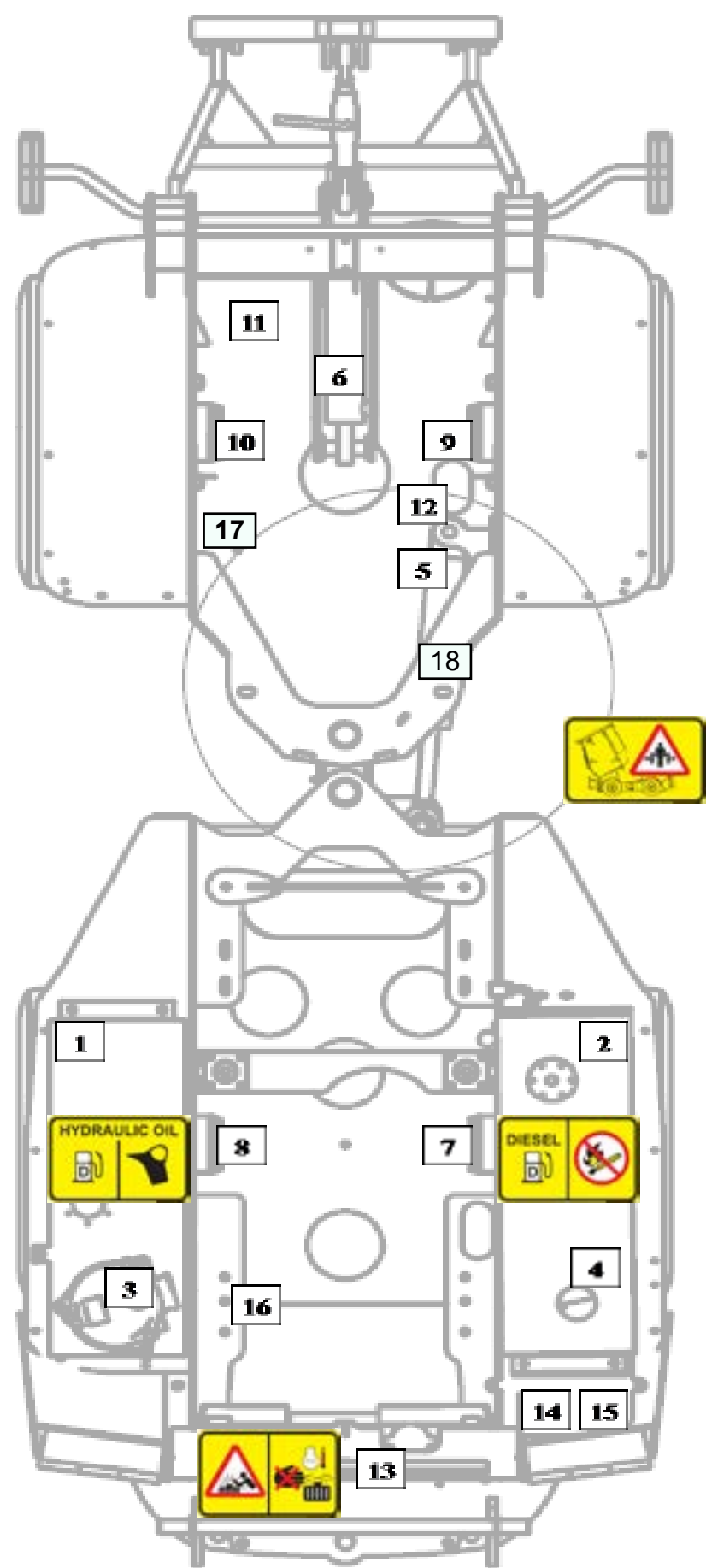
1. Rear lock of the fuel tank. Lever pos. 1 is turned down, then the Tank can be turned out.



1. Turning the fuel Tank gives access to.

Electrical Components and Service Parts:
V-Belt, Starter, Alternator, Water Pump, Battery, Exhaust, main Fuses and Air Filters.

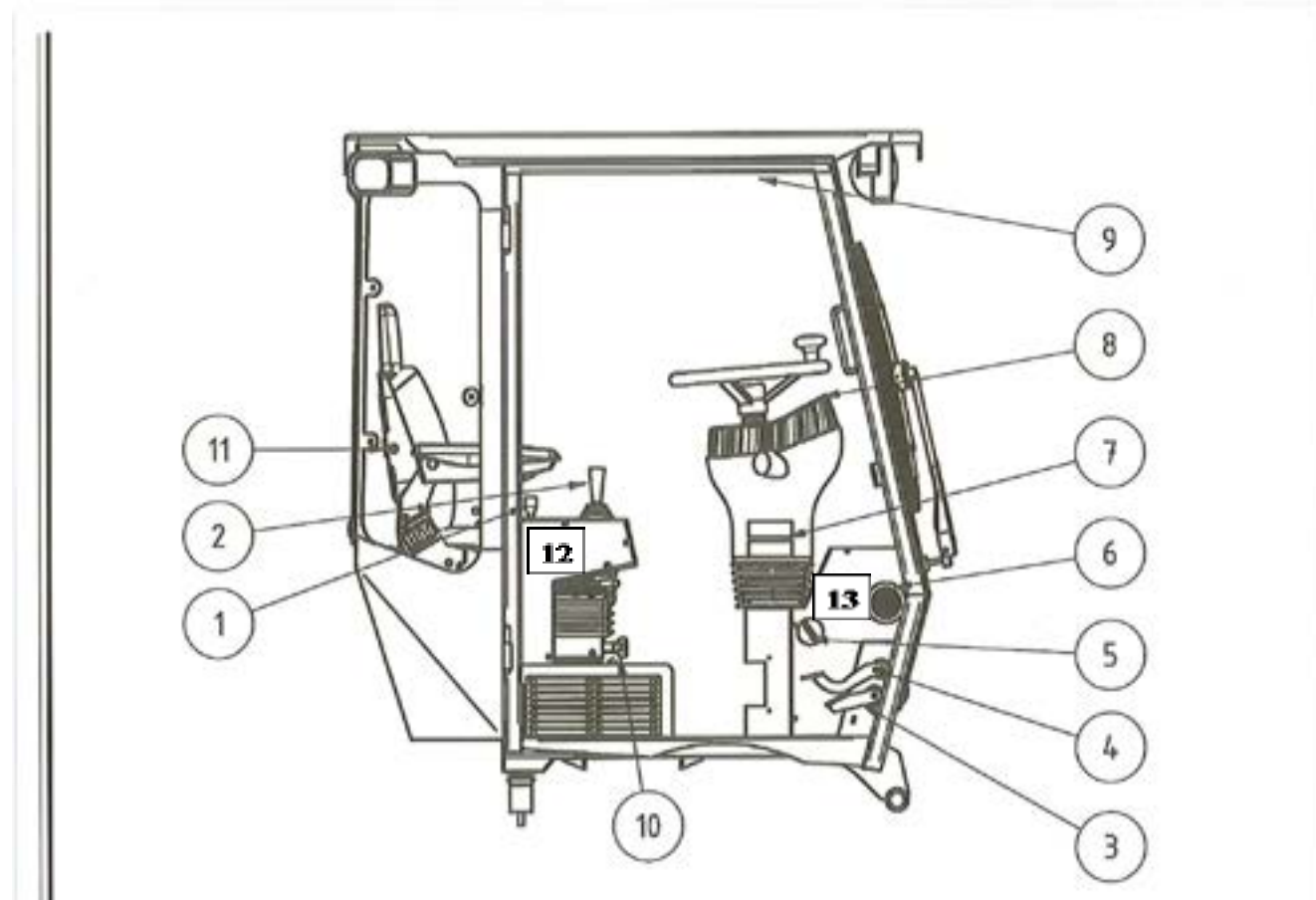
COMPONENT OVERVIEW:



COMPONENT OVERVIEW:

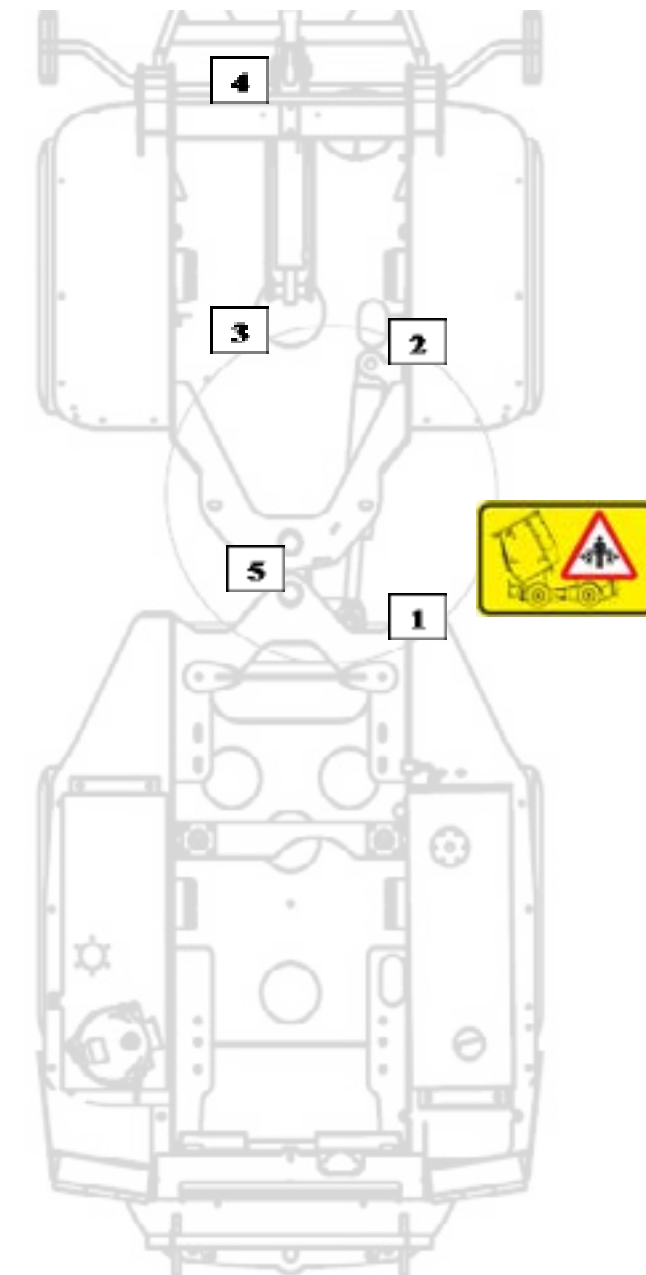
Nr.	Description.
1	Hydraulic tank.
2	Fuel tank.
3	Hydraulic return filter.
4	Fuel filler cap.
5	Steering cylinder.
6	Lift cylinder.
7	Right rear wheel motor.
8	Left rear wheel motor.
9	Right front wheel motor.
10	Left front wheel motor.
11	PTO valve.
12	Manoeuvre valve/ joystick block.
13	Radiator filler.
14	Battery.
15	Main fuses.
16	Dipstick.
17	Small PTO valve.
18	Weight transfer valve.

COMPONENT OVERVIEW:



Nr.	Description.
1	Throttle.
2	Joystick/ Manoeuvre levers.
3	Reverse pedal.
4	Forward pedal.
5	Cabin temp adjustment.
6	Air nozzles.
7	Fuse panel.
8	Steering column.
9	Fuse panel.
10	Seat Height adjustment.
11	Seat Backrest adjustment.
12	Electronic for aircon and manoeuvre funktion.
13	Cabin heater.

LUBRICATION SCHEDULE:

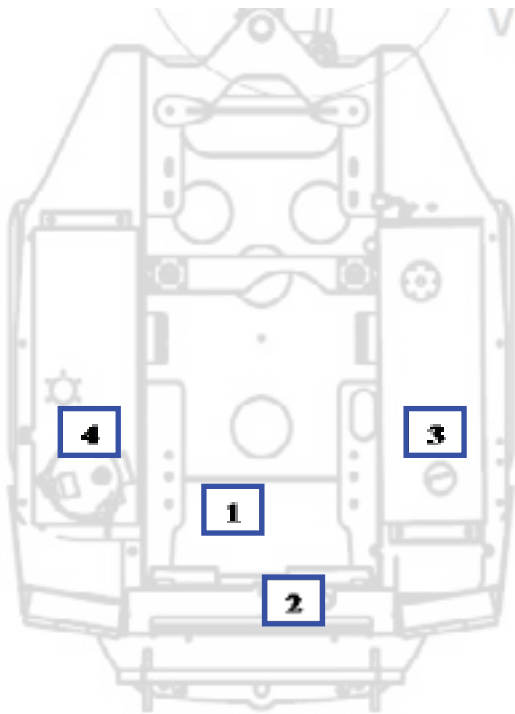


	Lubricate Nipple:	Interval:
1	Steering Cylinder Rear.	Week.
2	Steering Cylinder Front.	Week.
3	Liftcylinder Rear.	Week.
4	Liftcylinder Front.	Week.
5	Center Linkage.	Daily.
6	Door hinges.	Monthly

Use grease type: Molytex EP2

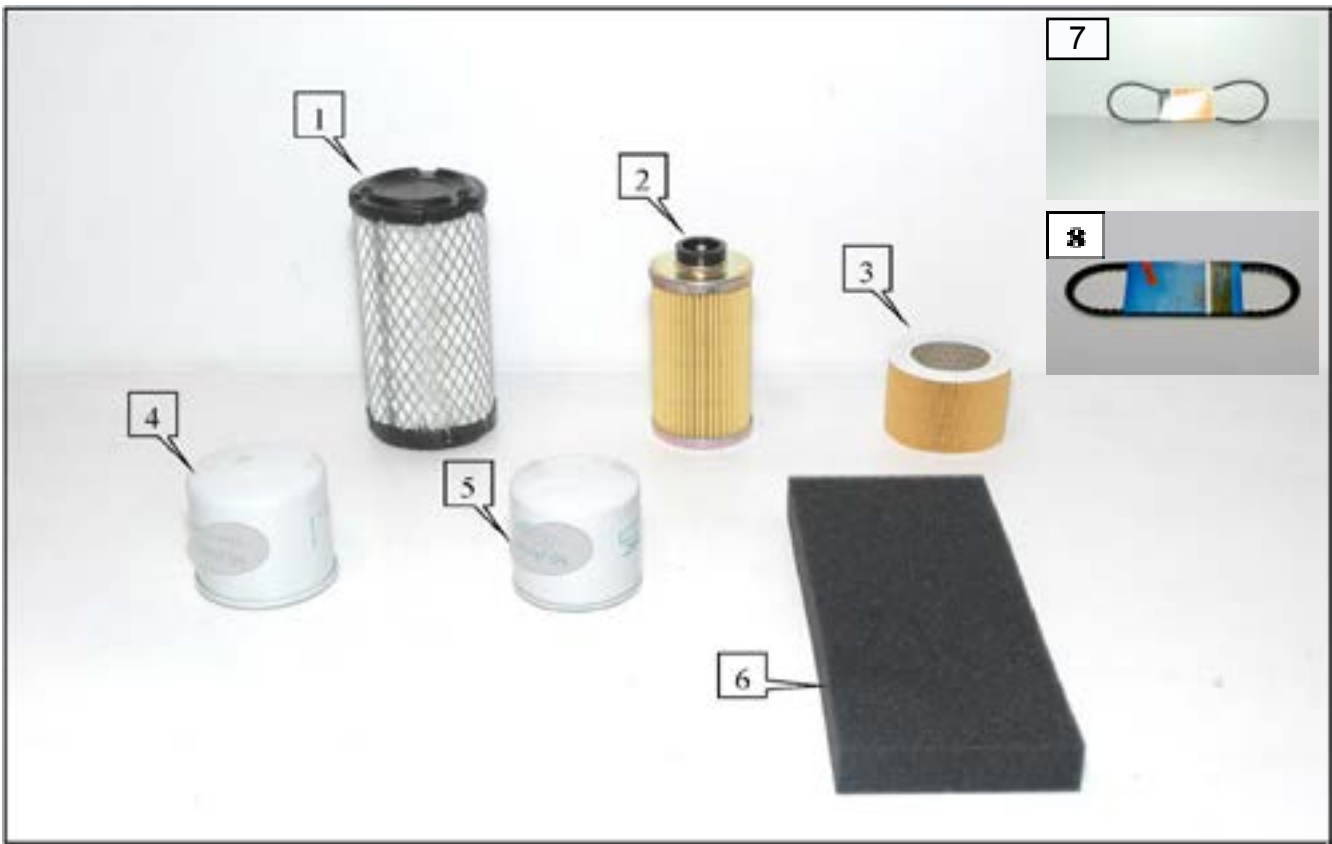
FLUIDS:

	Fluid types:	Quantity: 2030	Quantity: 2040
1	Motor oil Texaco Ursa Premium TD 10W-40	4,4 L	5,0 L
2	Coolant Havoline XLC	6,0 L	6,0 L
3	Diesel ASTM D975	28 L	28 L
4	Hydraulic oil Texaco HDZ 46	25 L	25 l
4A	Hydraulic oil Texaco Hydral 46	25 L	25 L
5	Wind screen washer fluid	1 L	1 L



Be sure to place the machine on a flat, clean surfaces before control of oil levels or change of Oil.

SERVICE PARTS:



KEY	PART CODE	DESCRIPTION	DIV.
1	MOT9105	Air filter element 2030	
1a	MOT9103	Air filter element 2040	
2	HYD1916	Return filter element 2030	
2a	HYD1927	Return filter element 2040	
3	HYD1912	Filter element for filler cab 2030/40	
4	MOTC1520	Engine oil filter 2030	
4a	MOTC1525	Engine oil filter 2040	
5	MOTC1530	Fuel filter 2030/40	
6	DIV2072	Cabin filter 2030/40	Option
7	MOTC2015	V-belt 2030/40	
8	MOTC2020	V-belt A/C 2030/40	

Option.
Cabin pollen filter DIV2070

SERVICE SCHEDULE:

Subjects.	Service interval:				Comments.
	Daily.	50 h	500 h	Year.	
Motor oil.			•	•	
Motor oil Filter.			•	•	
Motor oil stand.	○				
Air filter.	○		•	•	
Coolant.	○				3000 HOURS OR 5 YEARS
Battery.	○		□		
Hydraulic oil.	○			•	
Hydraulic return filter.		•		•	
Medium pressure filter.		•		•	Only on the 2045/2060
Breather filter.				•	
Dieselfilter.			•	•	
Tire pressure.	○				
Wheel Bolts.	○	○			
Lubricating nipples.	○				Moly Grease
Brakes / Handbrakes.	○		□		
Cooler.	○ □	□	□		
V-belt.	○			•	

- Daily check and adjustment.
- Replacement.
- Cleaning and washing.

SERVICE AND MAINTENANCE:

All servicing Shall be performed at a Authorized VITRA Dealer. To ensure one year factory warranty these inspections must been carried out by a authorized dealer.

50 HOUR SERVICE:

Performed only 1 time when the tractor has run 50 hours.

1. Coolant must be inspected.
2. Water hoses must be inspected for damage.
3. V-belt for water pump / Alternator checked and tightened if necessary.
4. Exhaust div. Nuts and bolts must be tightened.
5. All Hydraulic hoses and connections must be Inspected for leaks and retighten if necessary.
6. Hydraulic filter change.
7. Check the nuts in the centre linkage and be sure to hydraulic hoses run the right way through the machine.
8. Inspect and tighten all bolts, joints and nuts.
9. Tighten Wheel nuts to 12 Kg.
10. Driving cable must be inspected and adjusted if necessary.
11. Check hand brake and cables for fractures and adjusted cable if necessary.
Check drum brakes and cables for fractures.
12. Check all electric functions/connections.
13. Inspect cabin filter replace if necessary.
14. Inspect the wiper blades and sprinkler.

500 HOUR SERVICE:

(Or once every year.)

1. Engine oil and filter change.
2. Fuel filter change.
3. Air filter replace.
4. Coolant inspect.
5. Water hoses must be inspected for damage.
6. V-Belt inspection and adjustment.
7. Valve clearance check and adjusted.
8. Exhaust nuts and bolts must be tightened.
9. Hydraulic oil and filter change.
10. Check the nuts in the centre linkage and be sure to hydraulic hoses run the right Way through the machine.
11. Inspect and tighten all bolts, joints and nuts.
12. Hand brake and adjust cable adjustment.
13. Driving cable must be inspected and adjusted if necessary.
14. Check all electric functions/connections.
15. Inspect cabin filter, replace if necessary.
16. Inspect/change the wiper blades and Sprinkler.

YEAR SERVICE:

1. Hydraulic oil and filter change.
2. Wheel brakes must be inspected and cleaned up.

SERVICE AND MAINTENANCE:

ENGINE OIL.

Mobil Super 2000 10W-40 SL / CF.

HYDRAULIC OIL.

Standard:

Texaco HDZ 46 ca. 25 l.

Option: Bio Texaco hydraul

Always check the level after changing/ or topping the Oil.



The Hydraulic oil must be change immediate if.

1. The oil has been overheated 80° or higher.
(The oil becomes a brownish colour)

COOLANT.

OK Excellent coolant and distilled water in the ratio 50/50% providing frost protection to -37 °.

Cooling water should be checked for proper mixture before frost sets in.

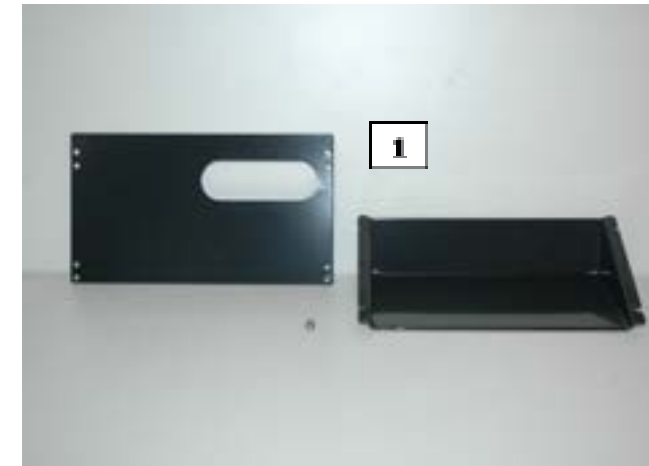
It is entirely the owner's responsibility to ensure the above matters.

The coolant fluid is recommended changed every 3000 hours or every 5 Years.

AIR FILTER.

The air filter must be changed when it no longer can be cleaned properly, however, At least 500 hours operation.

ENGINE 2030 ACCESS POINTS:



1. Rear cover under the machine.

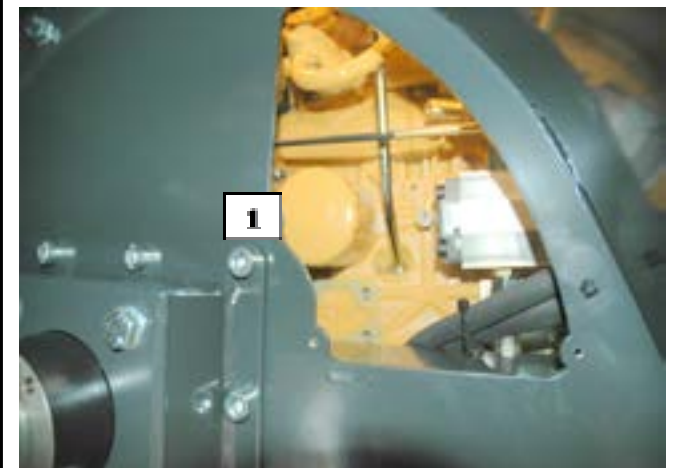


1. The fuel filter (on the left side of the engine).

Before changing the filter you must clean around it.



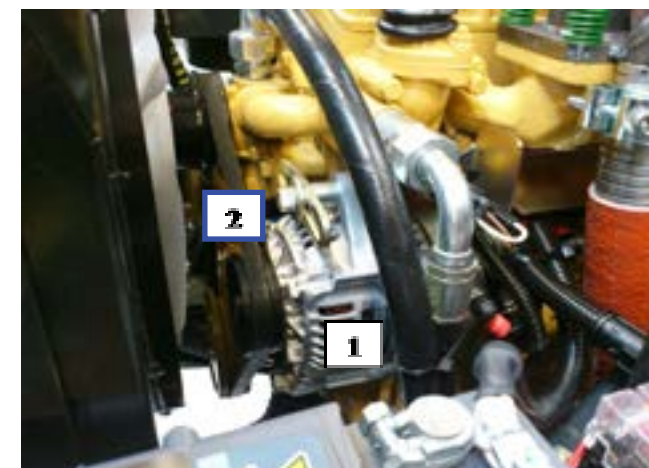
1. Engine oil drain.



1. The engine oil filter.

Access point behind left rear wheel.

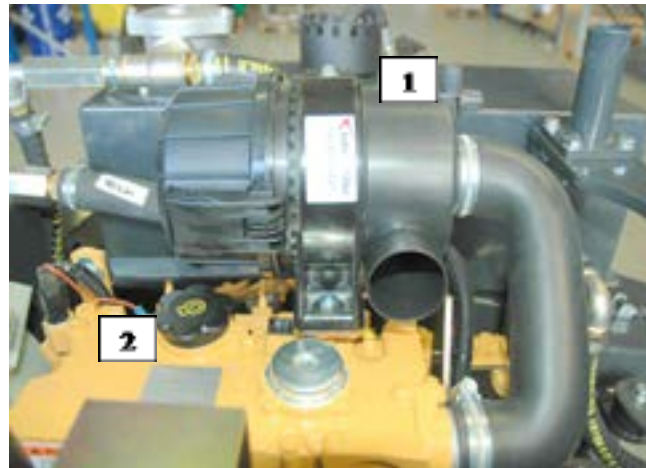
Before changing the filter you must clean around it.



1. Generator.

2. V-belt.

ENGINE 2030:

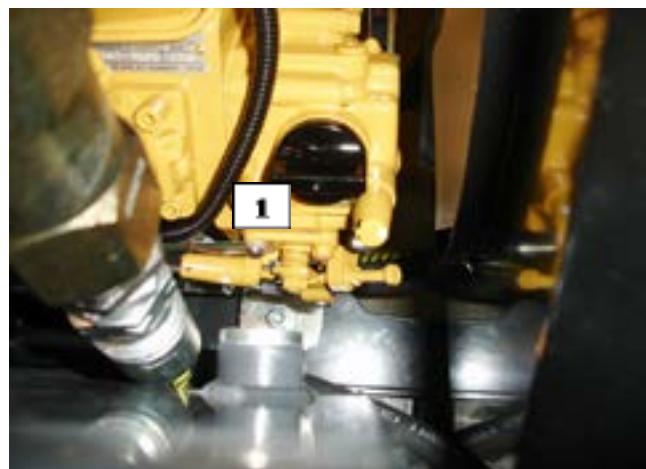


1. The air filter.
2. The oil filler cap.

Before changing the filter you must clean around it.



1. The dipstick.



1. Filling the engine with oil.
Left hand side of the engine.

Breather position and assembly.

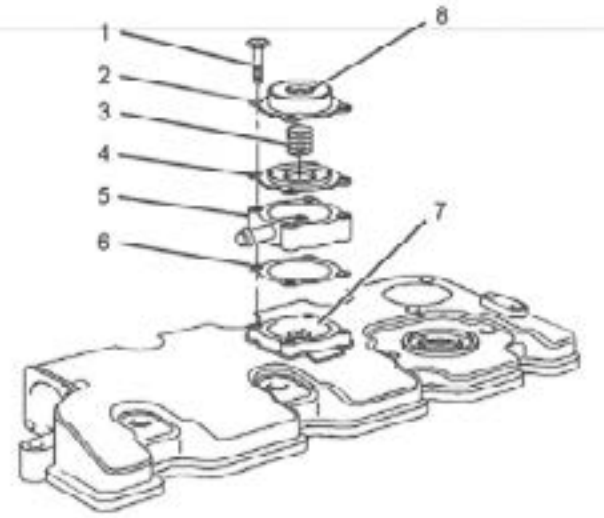


Illustration 49

901335247

Typical example

- (1) Screws for the breather cover
- (2) Breather cover
- (3) Spring
- (4) Diaphragm and plate
- (5) Spacer for turbocharged engines only
- (6) Joint for turbocharged engines only
- (7) Cavity
- (8) Vent hole

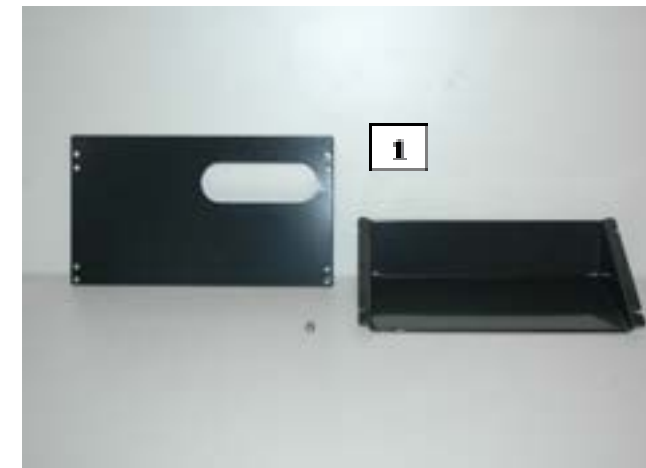
1. Loosen the screws (1) and remove the breather cover (2) from the valve mechanism cover.
2. Remove the spring (3). Remove the diaphragm and plate (4).
3. For turbocharged engines, remove the spacer (5) and the joint (6).
4. Clean the vent hole (8) and the cavity (7) in the valve mechanism cover

NOTICE

Make sure that the components of the breather assembly are installed correctly. Engine damage may occur if the breather assembly is not working correctly.

5. For turbocharged engines, install a new joint (6) and the spacer (5).

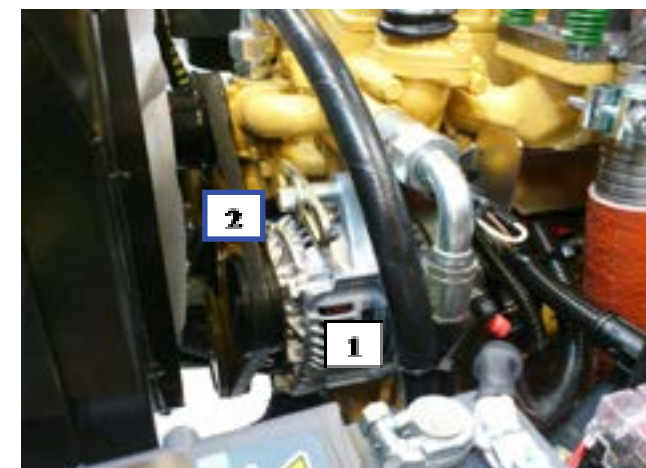
ENGINE 2030/40 ACCESS POINTS:



1. Rear cover under the machine.



1. Engine oil drain.

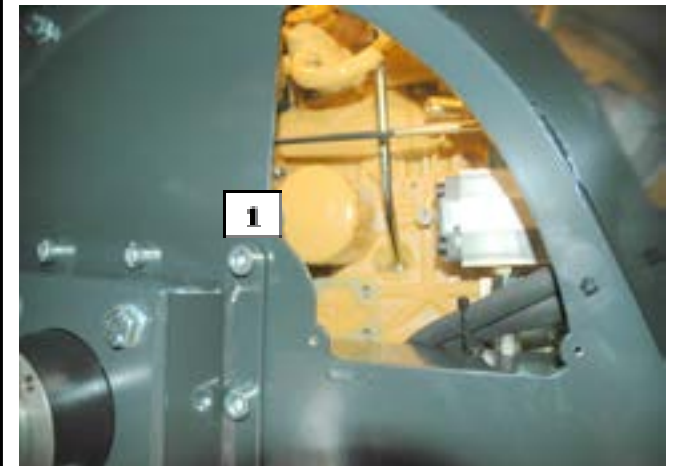


1. Generator.
2. V-belt.



1. The fuel filter (on the left side of the engine)

Before changing the filter you must clean around it.



1. The engine oil filter.

Access point behind left rear wheel.

Before changing the filter you must clean around it.

ENGINE 2040:

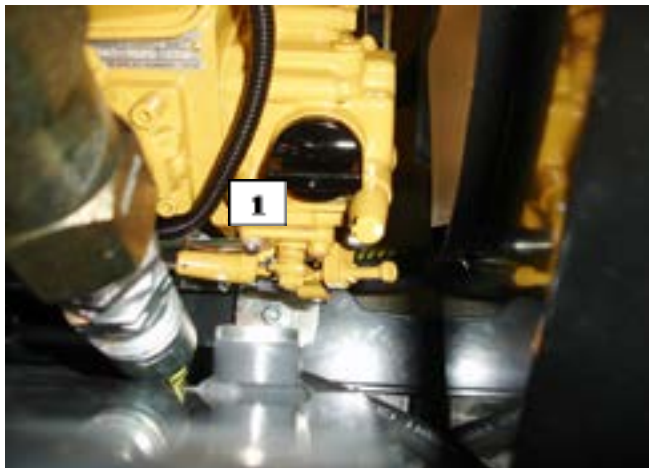


- 1. The air filter.
- 2. The oil filler cap.

Before changing the filter you must clean around it.



- 1. The dipstick.



- 1. Filling the engine with oil. Left hand side of the engine.

Breather position and assembly.

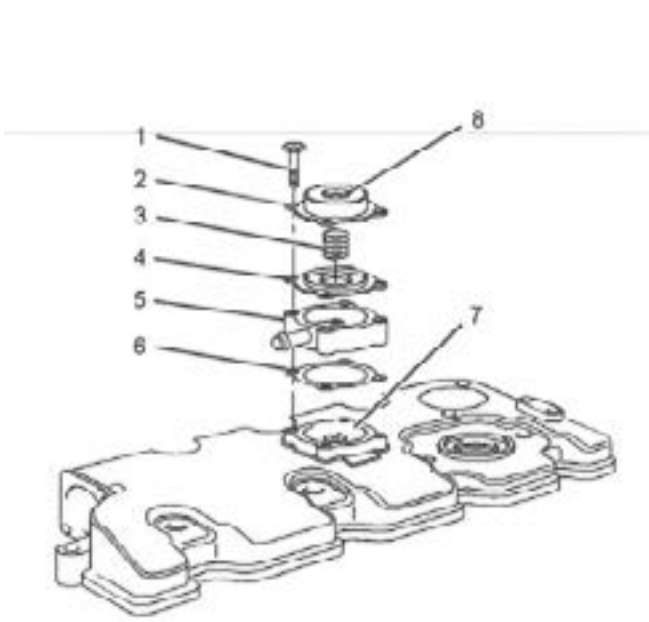


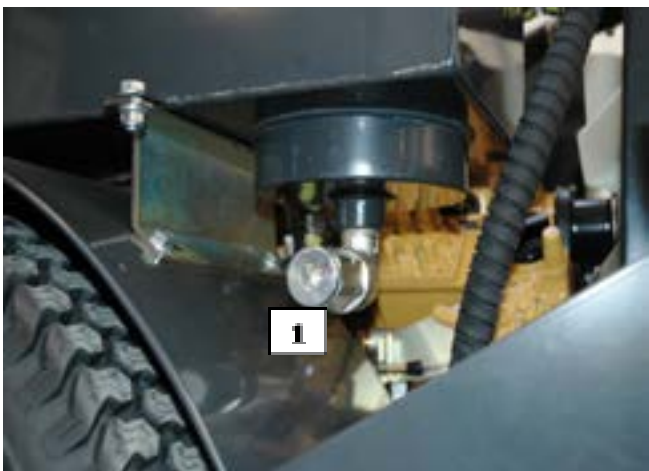
Illustration 49
Typical example
(1) Screws for the breather cover
(2) Breather cover
(3) Spring
(4) Diaphragm and plate
(5) Spacer for turbocharged engines only
(6) Joint for turbocharged engines only
(7) Cavity
(8) Vent hole

- 1. Loosen the screws (1) and remove the breather cover (2) from the valve mechanism cover.
- 2. Remove the spring (3). Remove the diaphragm and plate (4).
- 3. For turbocharged engines, remove the spacer (5) and the joint (6).
- 4. Clean the vent hole (8) and the cavity (7) in the valve mechanism cover

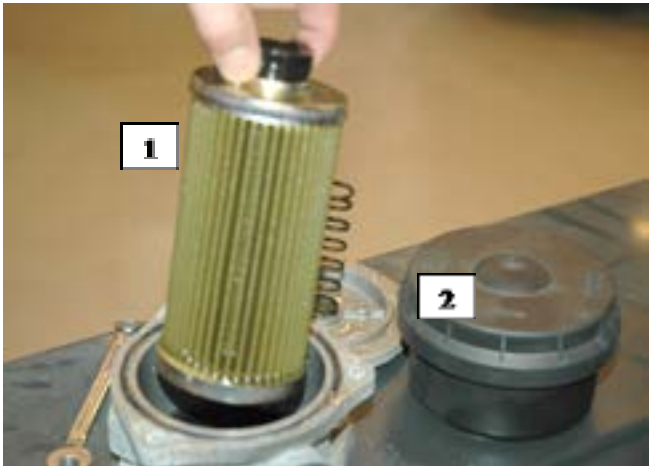
NOTICE
Make sure that the components of the breather assembly are installed correctly. Engine damage may occur if the breather assembly is not working correctly.

- 5. For turbocharged engines, install a new joint (6) and the spacer (5).

HYDRAULICS ACCESS POINTS:

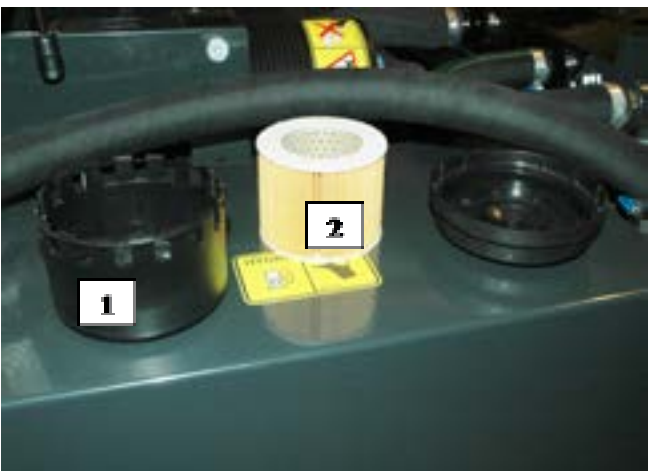


- 1. Drain for Hydraulic Oil.
Placed below the hydraulic tank.



- 1. The return oil filter.
- 2. The oil filler cap and filtered breather.

Remember to clean around the tank and filter before working on them.



- 1. Tank Venting Filter.
- 2. Filter Breeder.

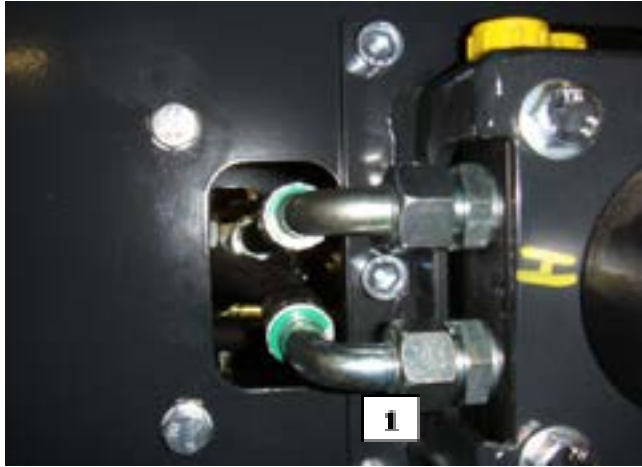


Remember to clean around the tank and filter before Opening.

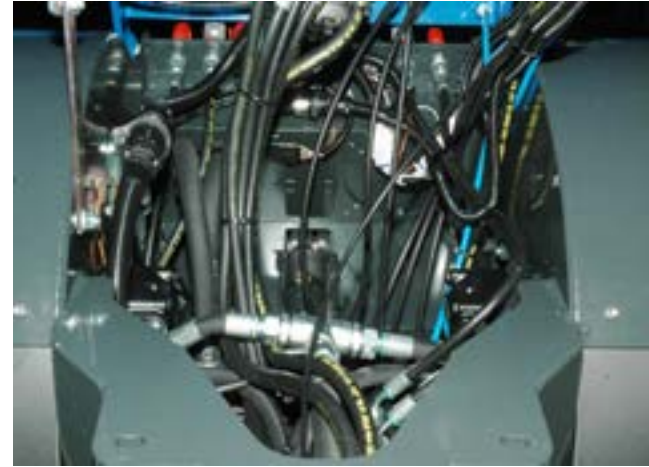


- 1. Hydraulic oil thermometer placed on the front of the hydraulic tank.

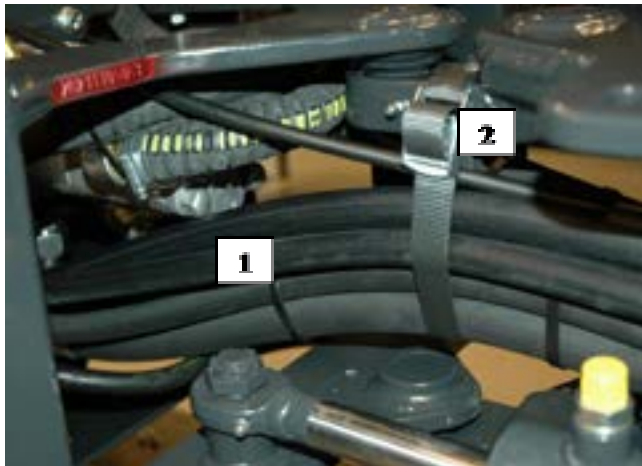
HYDRAULICS CONNECTIONS:



1. All Hydraulic Couplings on the machine must be inspected at each service.
Example: Left rear wheel motor.

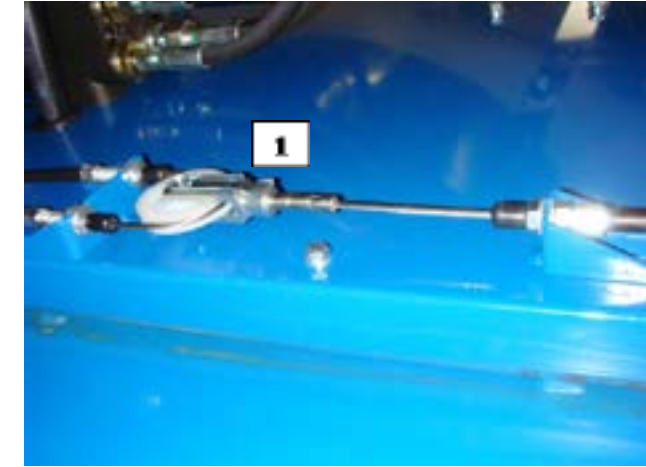


1. The Hydraulic Hoses must be inspected visually and couplings tightened.
Example: Picture of the front part of the chassis under the cabin.

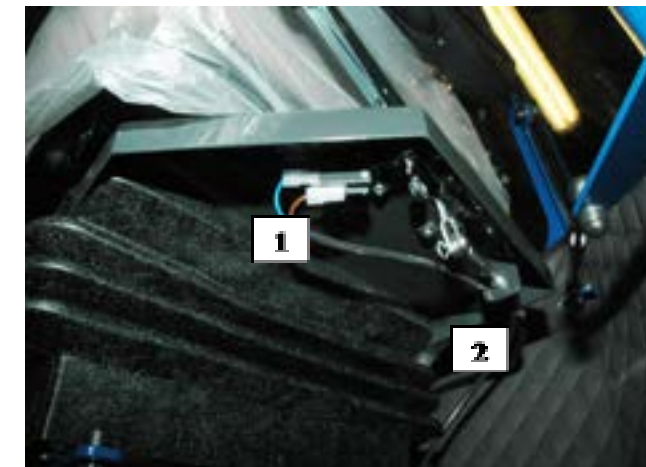


1. The Hydraulic Hoses on the machine must inspect ed for damage. It is important that the hoses are positioned correctly.
2. The Belt mounted in the centre pivot, must be tight net to ensure all hoses moving freely, without touching the chassis.

PARKING BRAKES:

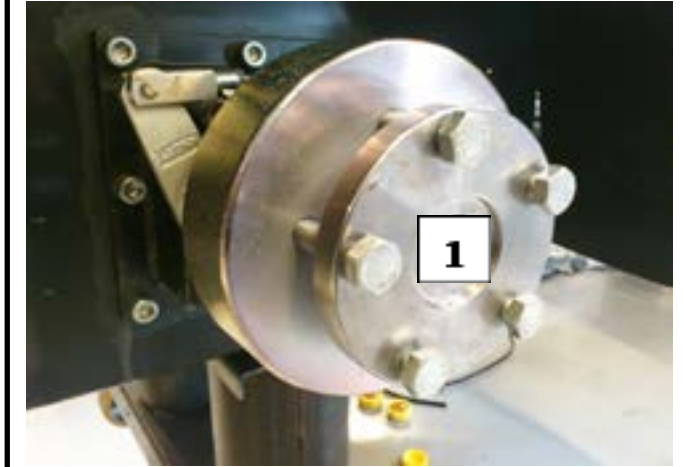


1. Too much slack on the cable reduces the brake therefore must the cable be adjusted at point 1 (not self-adjusting)
2. Hanging brakes may be due to Rust in the Cable or the Brakes. Grease or if necessary replace the damaged parts.



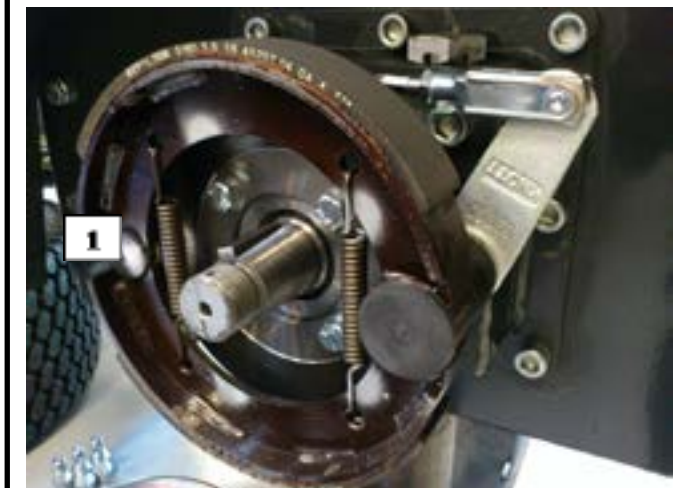
Picture of the socket for the hand brake.

1. To ensure proper function of the hand brake light, the switch (Pos. 1) has a lever which can be manually bent to adjust.
2. The cable of the hand brake. (Pos. 2)



Disassembling of the Drum Brake.

1. Remove the safety Pin and loosen the Center Nut. (Let it stay on so the Drum not fly of when you pull it of.)
2. **Nut tightened to 200 Nm + nearest hole.**



1. Min.: Brake lining 1.5 mm
2. Make sure that all Components are clean and Lubricated before re assembling.



Picture of brake cable attachment at the drum brake.
Tjek cabel for damages.

COOLING SYSTEM:



Radiator has to be cleaned daily, or whenever it is clotted by grass or leaves.

The machine is fitted with a quick release prefilter. To ensure enough cooling this filter must be kept clean at all times.



1. High pressure cleaning of the radiator must be done cautiously to avoid any damage.
2. Soak up the cooler with water/soap.
3. Afte ½ hour, clean up the cooler with not to much pressure.
3. Important: Clean up vertical to prevent damage of cooler fins.



1. Proper coolant level must just cover the slats in the radiator.



Should be exercised great caution when working on a cooling system. The cooling system is pressurized with very hot water which may boil at pressure drop.



1. The radiator has to be cleaned daily, or whenever it is clotted by grass or leaves.

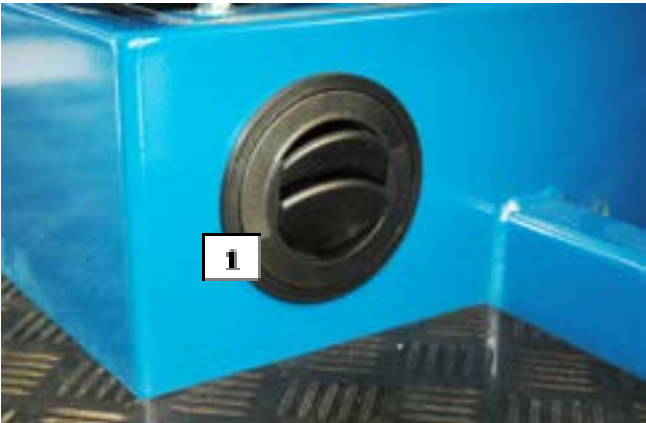
Picture of the cooling system seen from the engine compartment.

AIRCONDITION SYSTEM:

The a/c system consists of following parts.

- Compressor. (Fig. 2)
- V - belt. (Fig. 2)
- Capacitor. (Fig. 1)
- Pressure filter. (Fig. 3)
- Low pressure switch. (Fig. 3)
- Pressure Transmitter. (Fig. 4)
- Relay. (Fig. 7)
- On / off switch. (Not illustrated)
- Fuse at battery. (Fig. 6)
- Fuse. at the steering collum. (Fig. 5)

The a/c system performs best if you recirculate the air. Fog on the windows are also removed best by recycling.



1. Nozzle for recycle.

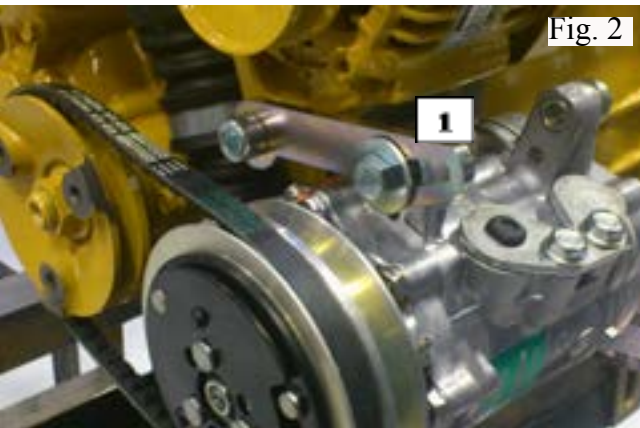
Under optimum conditions the a/c system will be able to lower the temperature in the cabin app. 7 gr. relative to the outside temperature. Radiation from the sun may influence on the performance.

The a/c system will not work in the following situations.		
Below 0-3 degrees Celsius.		
Pressure loss.	Can be tested by short-circuiting the pressure switch.	Fig. 3
Defect V-belt.	Change the V-belt.	Fig. 2
Blow fuse.	Change fuses.	Fig. 6
Defect relay.	Change relay.	Fig. 7
Frozen evaporator.	Adjust the pressure transmitter.	Fig. 4

AIRCONDITION SYSTEM:



1. The condenser must be cleaned regally with compressed air. (Must be done with caution.)



1. V-belt is tightened by loosening the bolt pos. 1 and then tilting out of the compressor.



Low press switch
placed under the cabin.



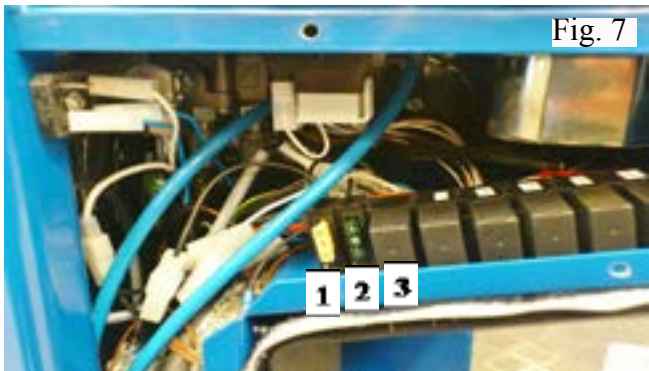
Pressure switch
placed under the cabin.



1. Fuse for A/C. No.4 from right.
Placed in the fuse box on the steering collum.



1. Fuse for A/C. No. 3
Placed under the fuel tank.

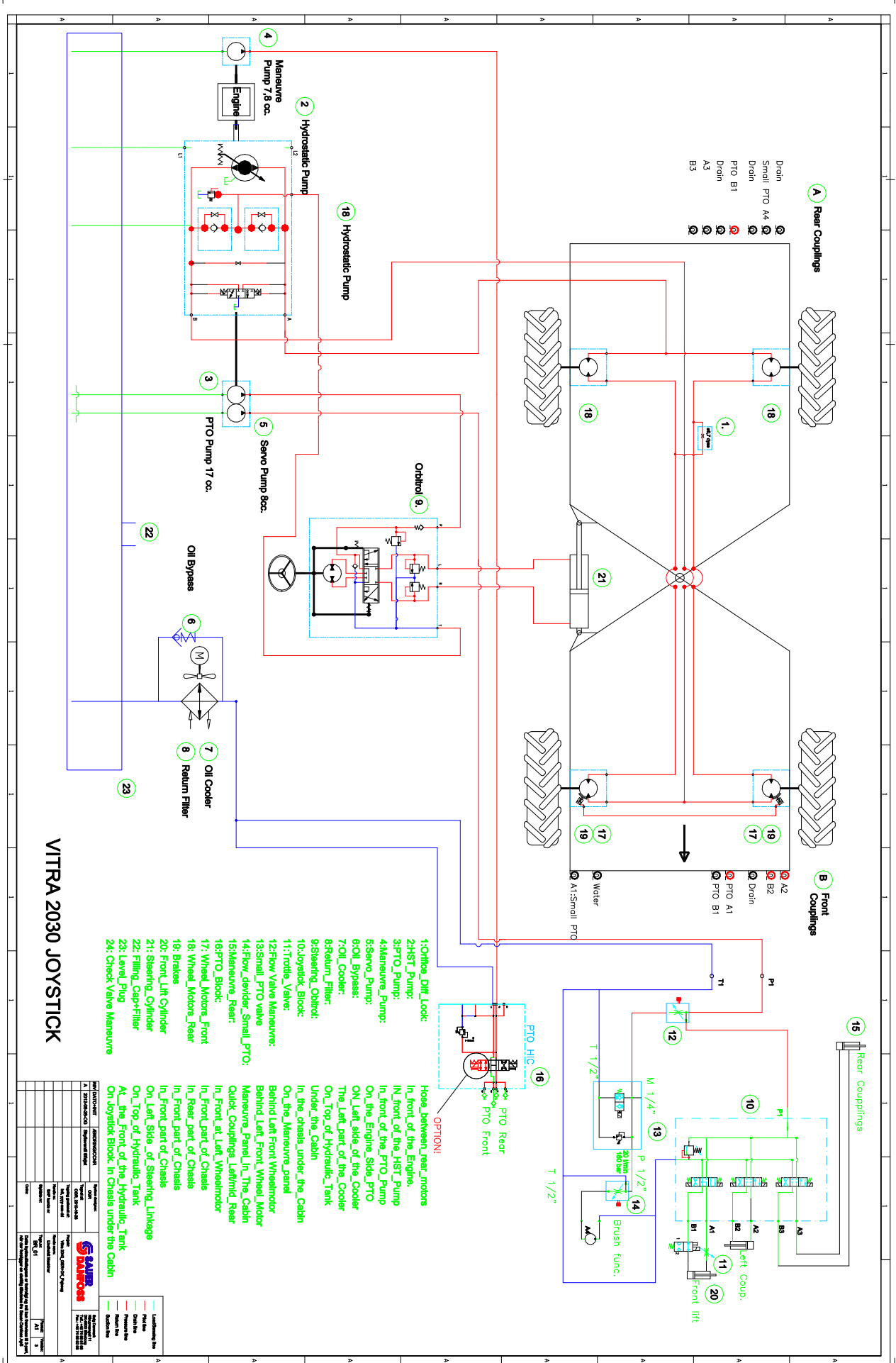


Relæ for a/c. No. 3

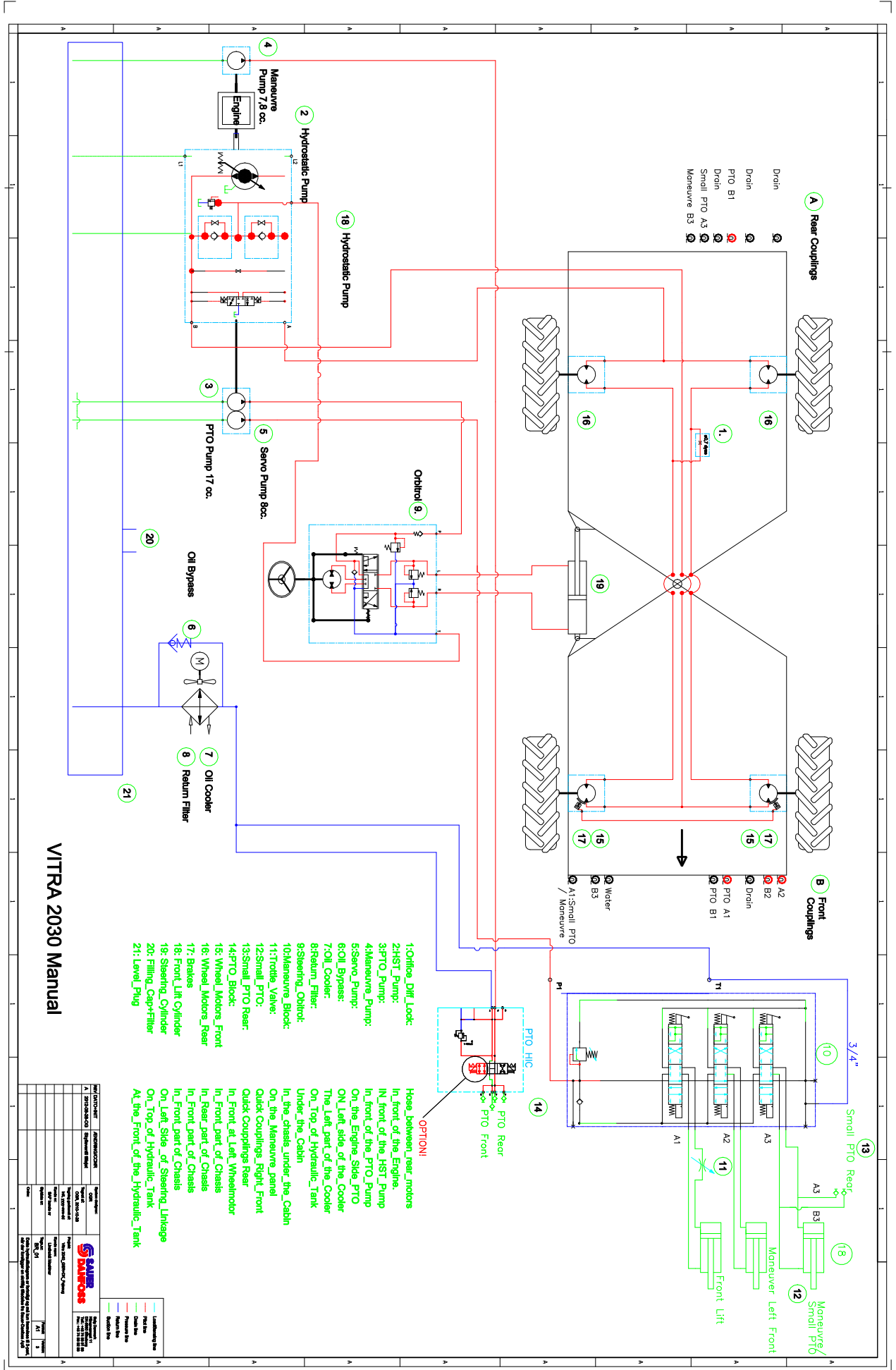
Placed in the technic box in the right side of the cabin.

1. Fuse for a/c.
2. Fuse for joystick.

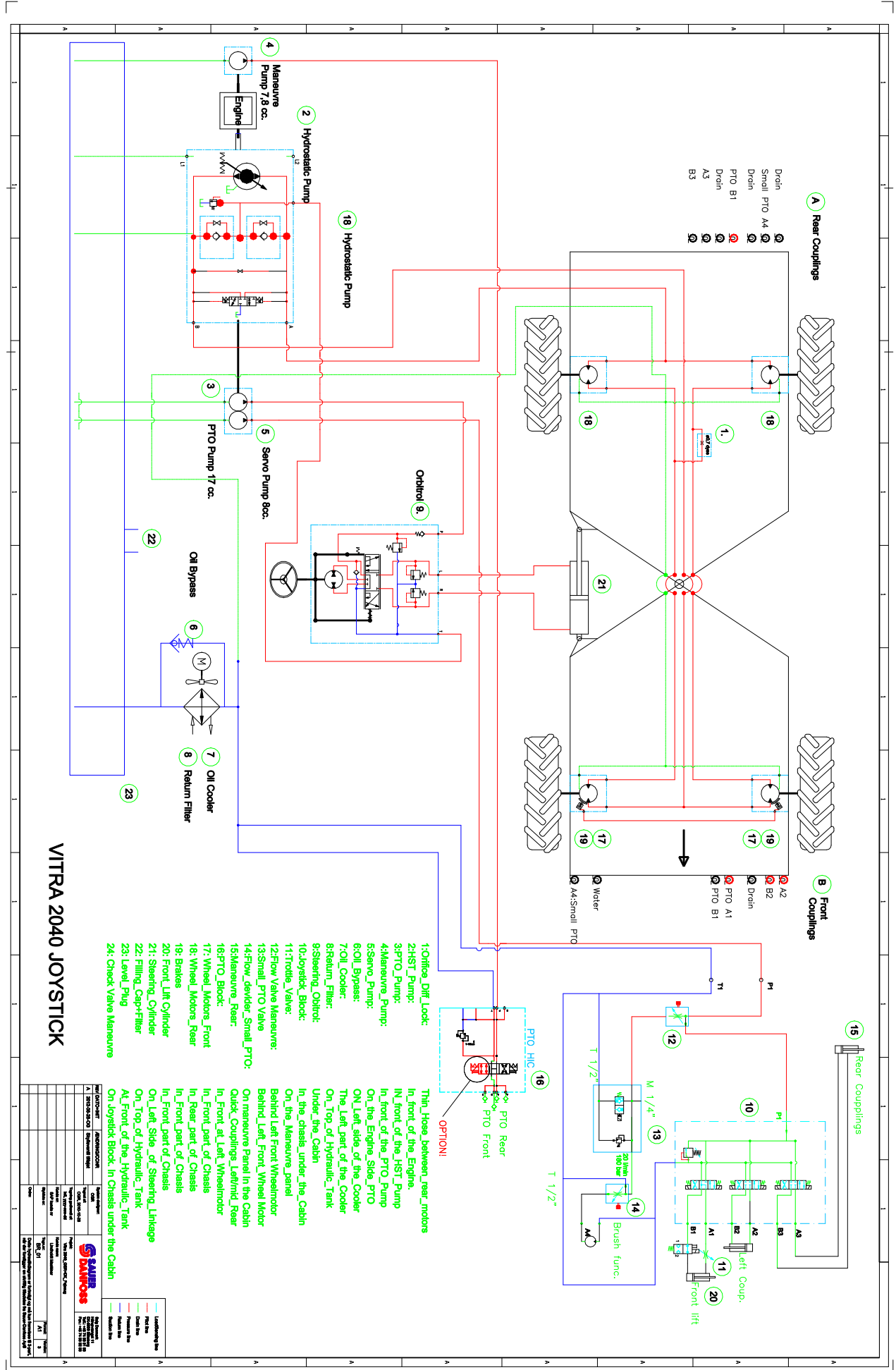
HYDRAULIC SYSTEM: 2030 JOYSTICK



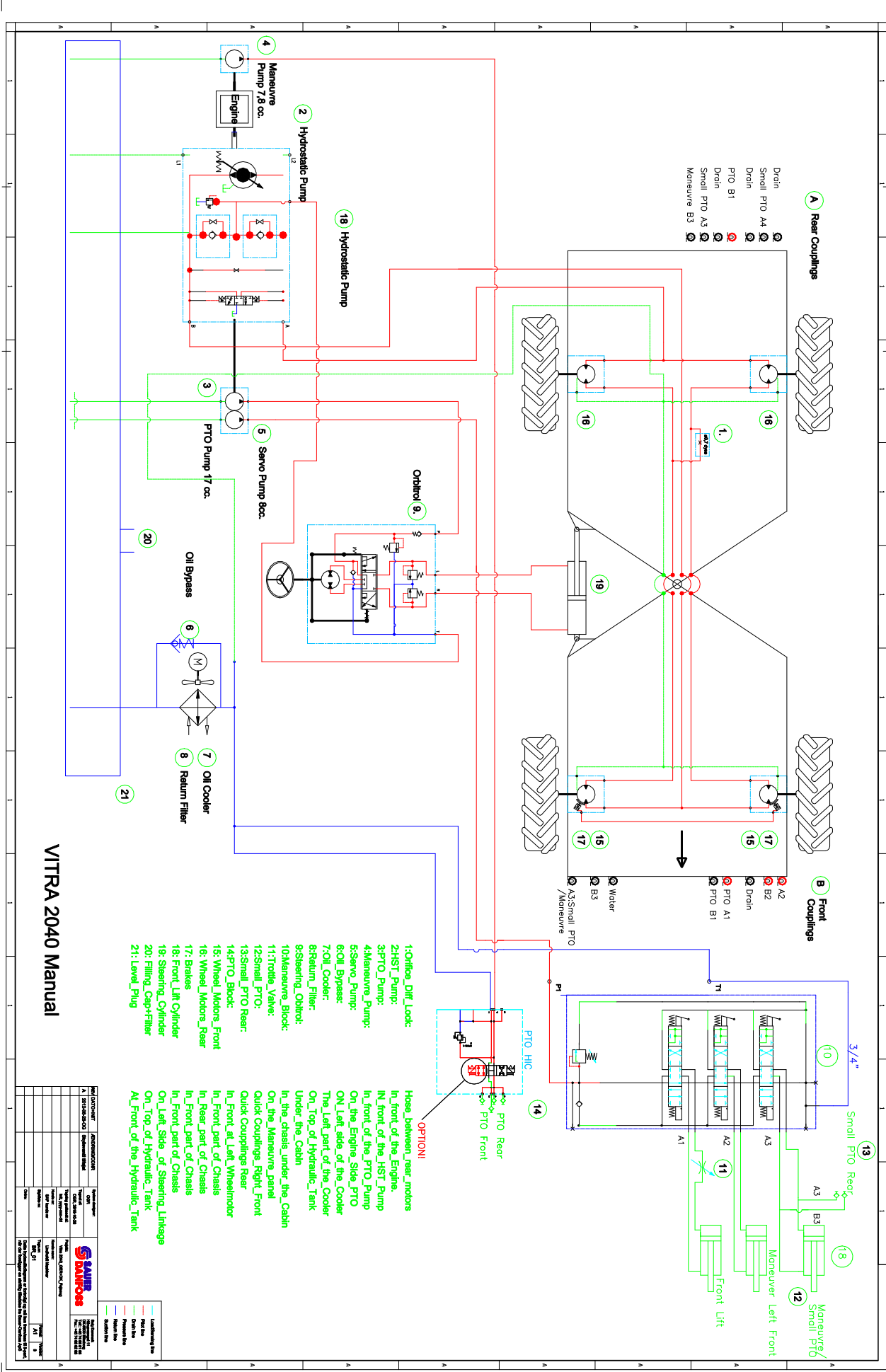
HYDRAULIC SYSTEM: 2030 MANUEL



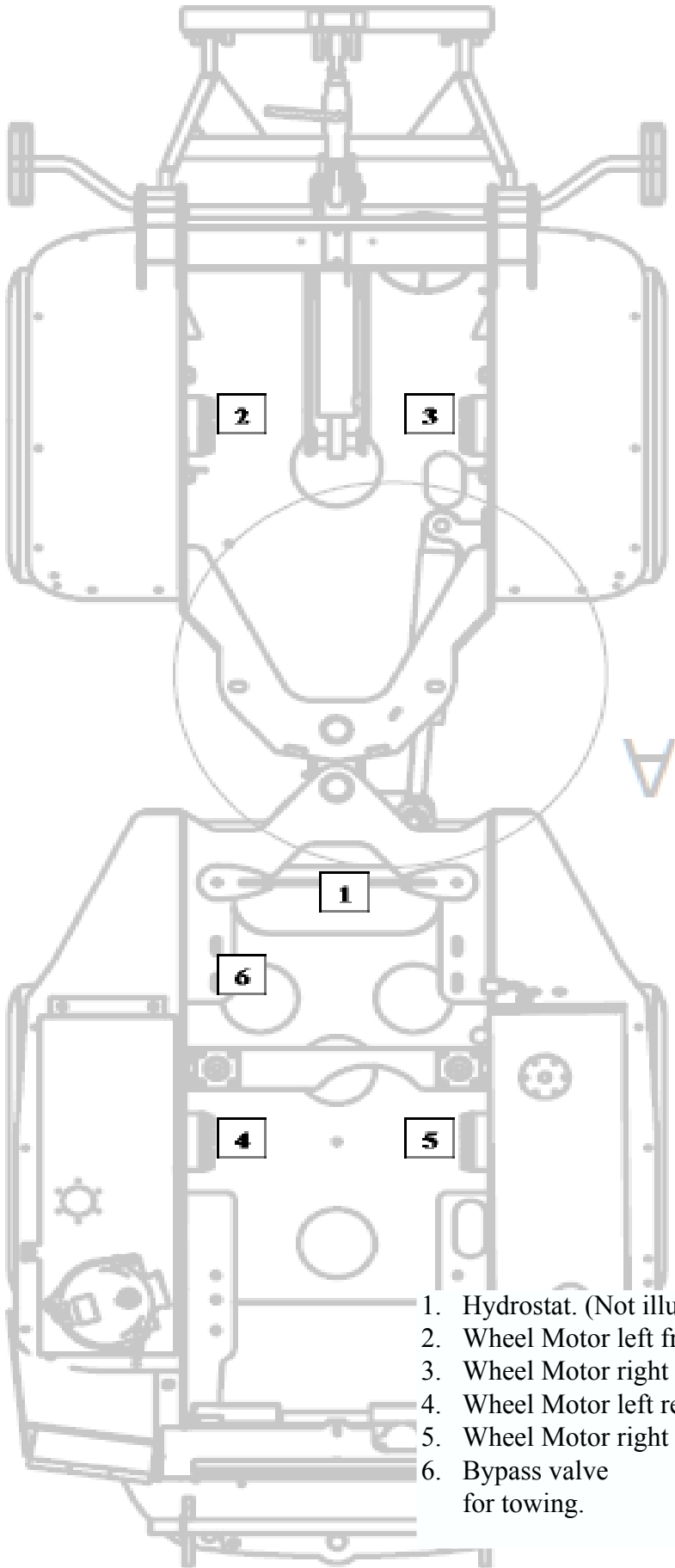
HYDRAULIC SYSTEM: 2040 JOYSTICK



HYDRAULIC SYSTEM: 2040 MANUEL



TRANSMISSION SYSTEM:

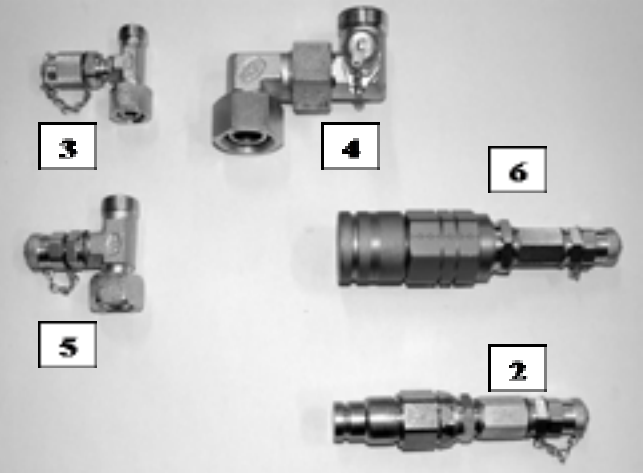


1. Hydrostat. (Not illustrated)
2. Wheel Motor left front.
3. Wheel Motor right front.
4. Wheel Motor left rear.
5. Wheel Motor right rear.
6. Bypass valve
for towing.

PRESSURE MEASUREMENTS AND SETTINGS:

Nr.	COMPONENT.	MEASURING CONNECTOR LOCATION.	ADJUST ITEM.	PRES-SURE. 2040	PRES-SURE. 2030
1	PTO.	FRONT	PTO BLOK	200	200
2	MANOEUVRING.	FRONT	UNDER THE WAGON	160	160
3	ORBITROL.	ORBITROL	ORBITROL P-PORT	150	150
4	OPERATING PRES-SURE.	HYDROSTATIC PUMP	HYDROSTATIC PUMP	300	250
5	BUSTER PRESSURE.	HYDROSTATIC PUMP	HYDROSTATIC PUMP	12	12
6	RETURN PRESSURE.	FRONT	NON ADJUSTABLE.	0,5-1,5	0,5-1,5

ADAPTERS.



Measuring adaptors.

- 2. Manoeuvring functions.
- 3. Orbitrol.
- 4. Driving pressure from the Hydrostate.
- 5. Booster Pressure Hydrostate.
- 6. Drain front and rear.

Measuring connectors have Parts. No.

- 2. VÆ8220
- 3. VÆ8200
- 4. VÆ8210
- 5. VÆ8205
- 6. VÆ8215

PRESSURE MEASUREMENTS AND SETTINGS:

Booster pressure.



- 1. Booster pressure valve: Not adjustable.
Position on the top of the Hydrostatic pump.

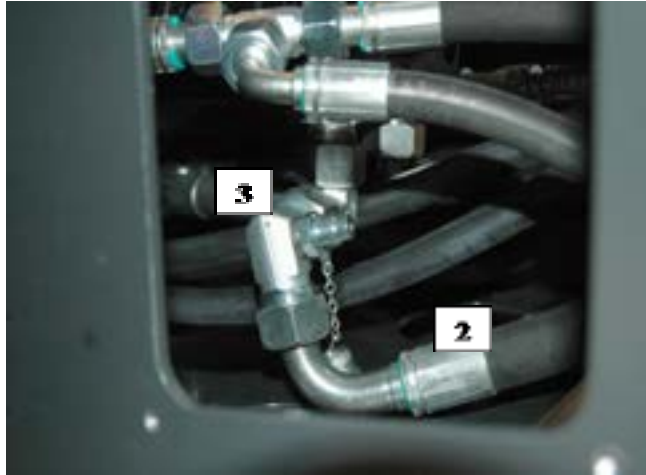
Booster pressure.



- 1. Measuring nozzle No. 2 to be mounted between
Hydrostatic pump and the hose from orbitrol.
Pressure must be 12 Bar. at engine rpm.

PRESSURE MEASUREMENTS AND SETTINGS:

Driving pressure:

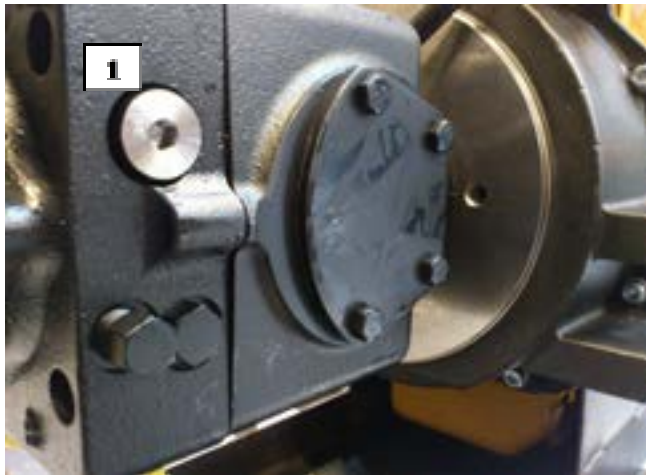
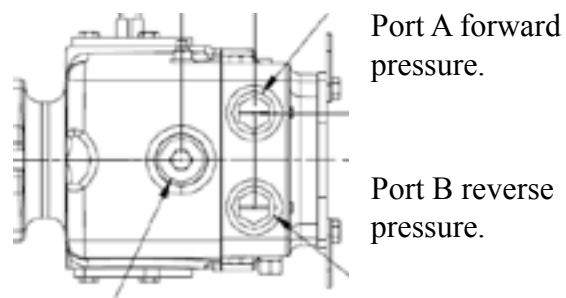


Measuring Nozzle No. 3 To be mounted between the Hydrostatic pump.

Pressure forward and reverse.

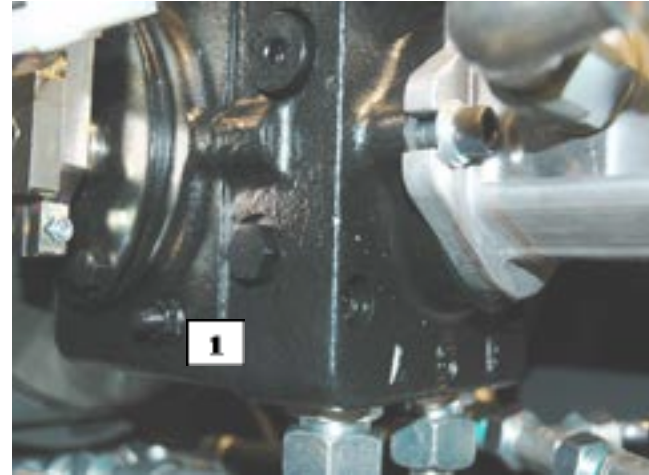
2030 = 250 Bar.

2040 = 300 Bar.



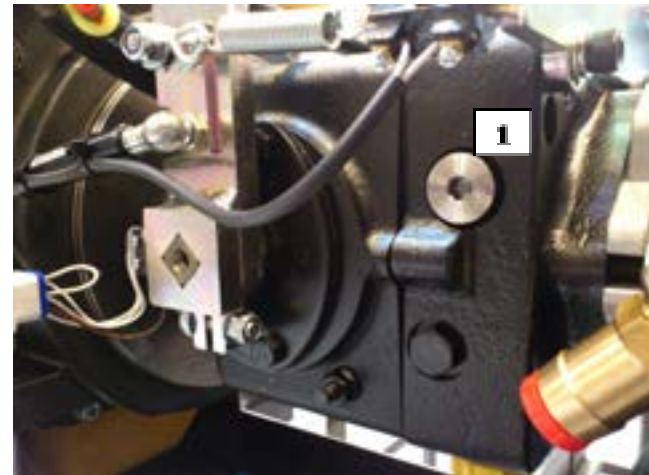
1. Relief valve reverse is not adjustable.

Positioned on the left hand side of the Hydrostatic pump.



1. Bolt (Pos. 1) for neutral adjustment.

Positioned on the right hand side of the Hydrostatic pump.



1. Relief Valve forward is not adjustable.

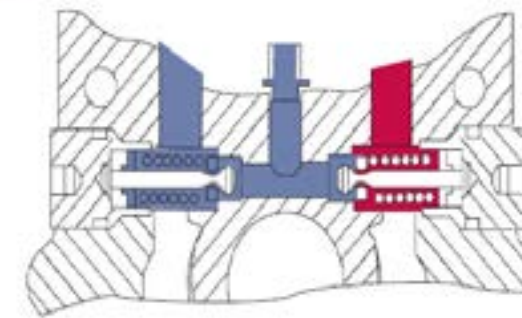
Positioned on the right hand side of the Hydrostatic pump.

PRESSURE MEASUREMENTS AND SETTINGS:

LPV pumps are equipped with a combination high pressure relief and charge check valve. The high-pressure relief function is a dissipative (with heat generation) pressure control valve for the purpose of limiting excessive system pressures. The charge check function acts to replenish the low-pressure side of the working loop with charge oil.

Each side of the transmission loop has a dedicated HPRV valve that is non-adjustable with a factory set pressure. When system pressure exceeds the factory setting of the valve, oil is passed from the high pressure system loop, into the charge gallery, and into the low pressure system loop via the charge check. The high pressure relief valve used on LPV is designed to remove pressure spikes for short periods of time. Operating over the high pressure relief valve for extended periods may damage the pump.

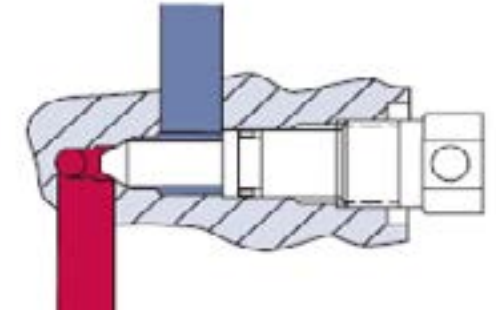
HPRV valve



The LPV contains a dedicated bypass valve. the bypass function is activated when the bypass valve is mechanically backed out 3 full turns (maximum).

The bypass function allows a machine or load to be moved without rotating the pump shaft or prime mover.

Bypass valve



PRESSURE MEASUREMENTS AND SETTINGS:

Excessive speed or extended movement will damage the pump and motor(s).
Avoid excessive speeds and extended load/vehicle movement. Do not move the load or vehicle more than 20 % of maximum speed or for longer than 3 minutes. When the bypass function is no longer needed, reseal the bypass valve to the normal operating position.

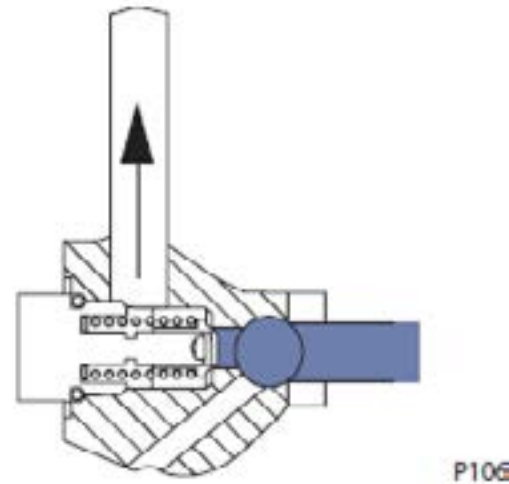
An internal charge relief valve regulates CPRV valve charge pressure. The charge pump supplies pressure to maintain a minimum pressure in the low side of the transmission loop.

Minimum charge pressure is the lowest pressure allowed to maintain a safe working condition in the low side of the loop.

Maximum charge pressure is the highest charge pressure allowed which provides normal component life. Elevated charge pressure can be used as a secondary means to reduce the swash plate response time. The charge pressure setting listed in the order code is the set pressure of the charge relief valve with the pump in neutral, operating with 5 gpm of charge flow. The charge pressure setting is referenced to case pressure.

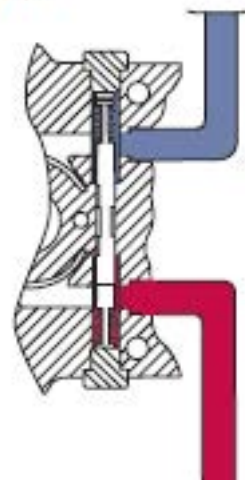
Charge pressure is the differential pressure above case pressure.
LPV is designed for a maximum charge flow of 57 L/min [15 US gal/min].

CPRV valve



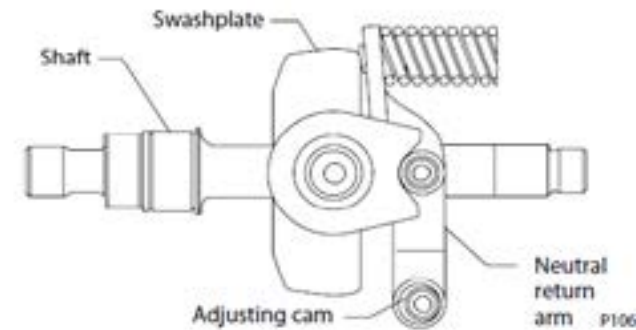
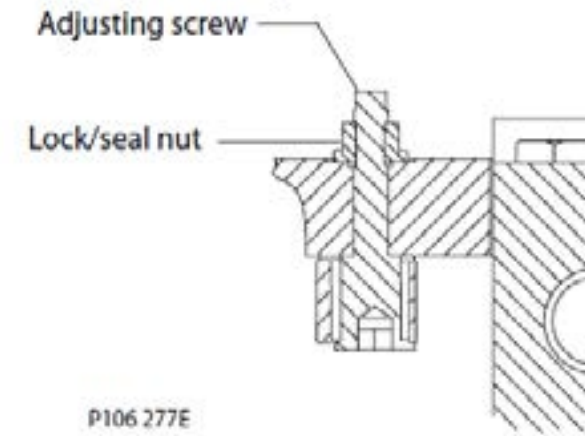
LPV pumps incorporate an integral loop flushing valve, which removes heat and contaminants from the main loop.

Loop flushing valve



PRESSURE MEASUREMENTS AND SETTINGS:

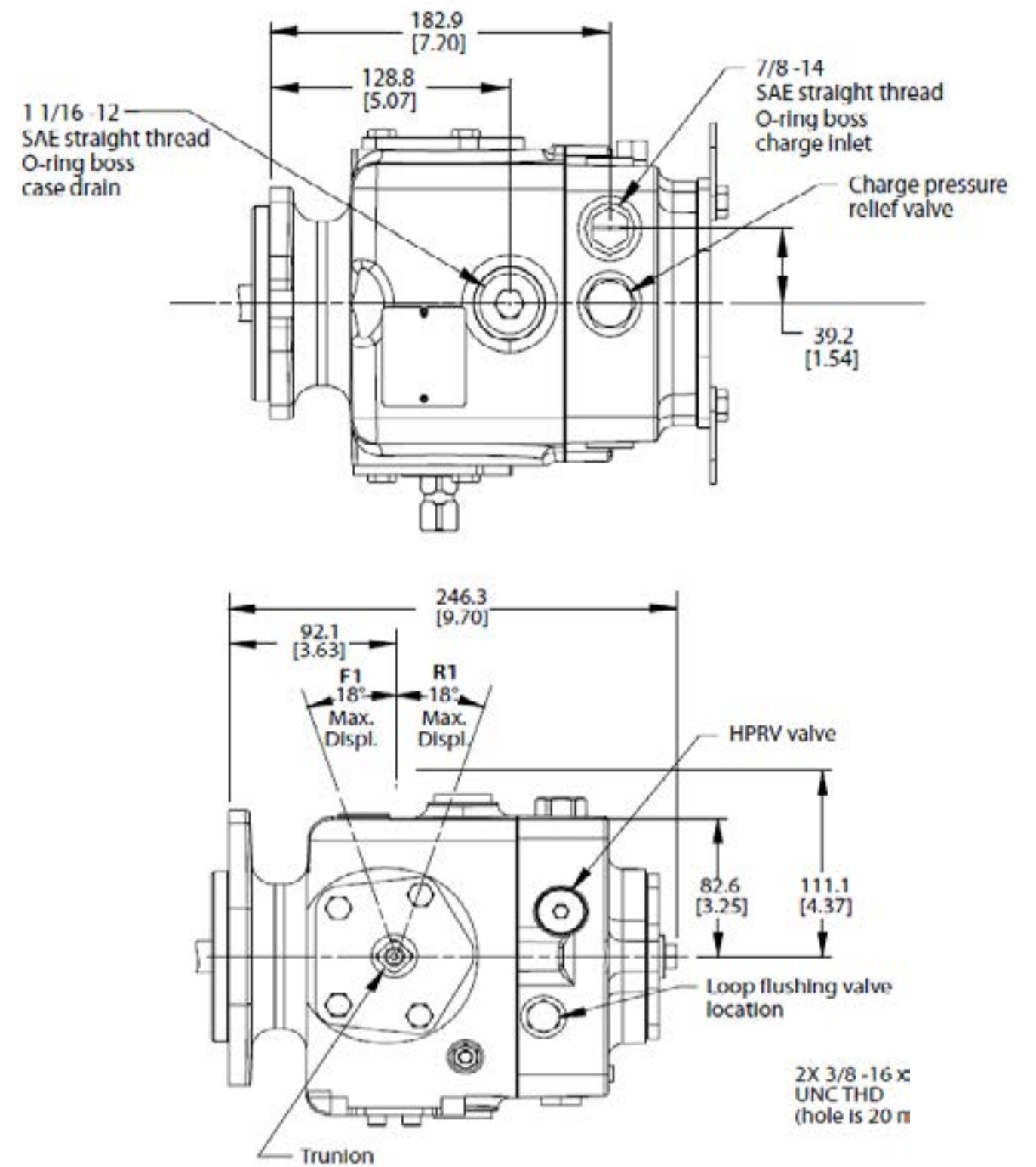
Neutral return adjustment screw



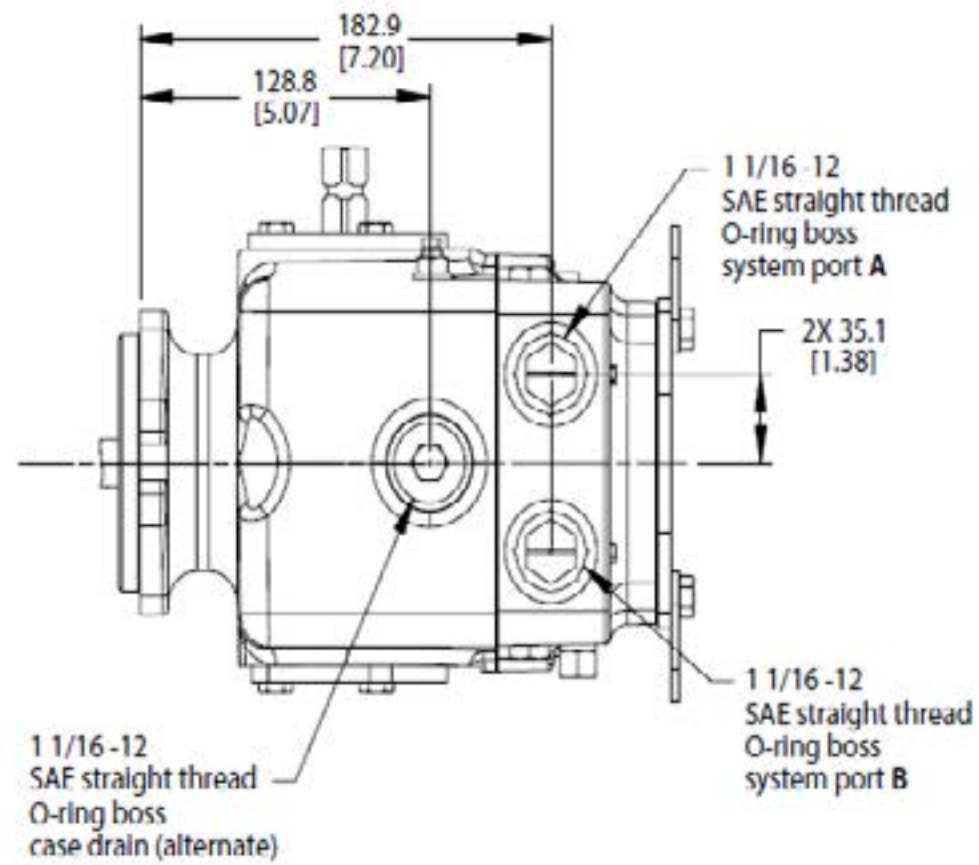
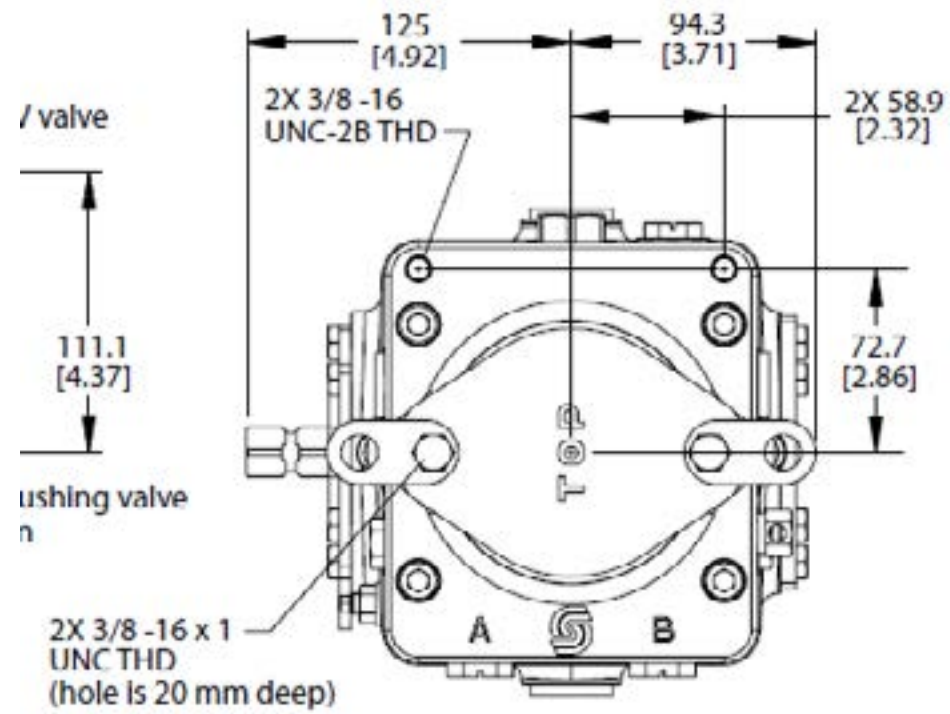
PRESSURE MEASUREMENTS AND SETTINGS:



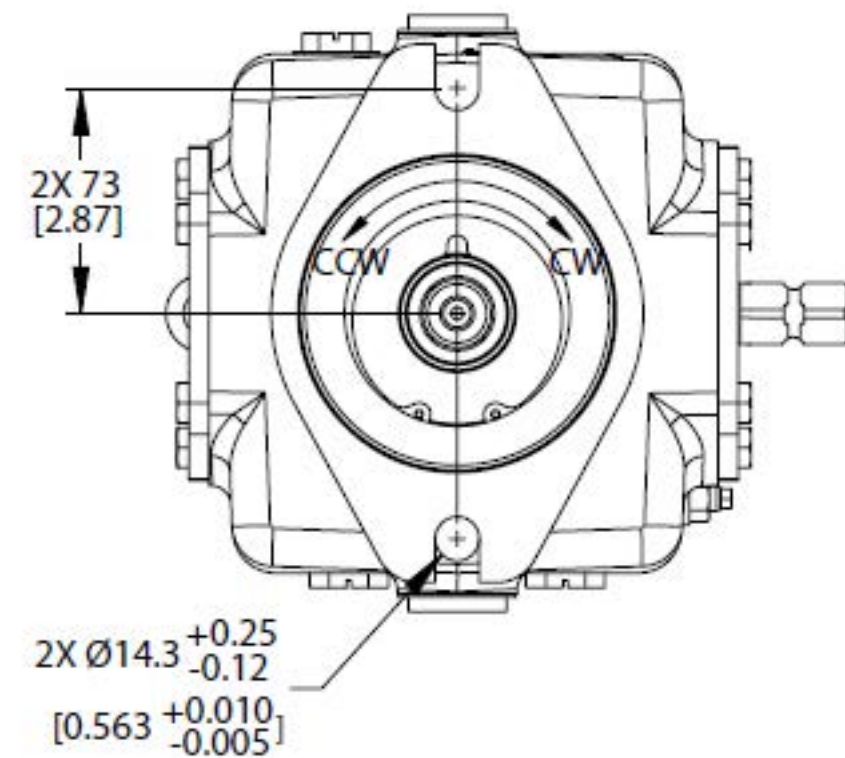
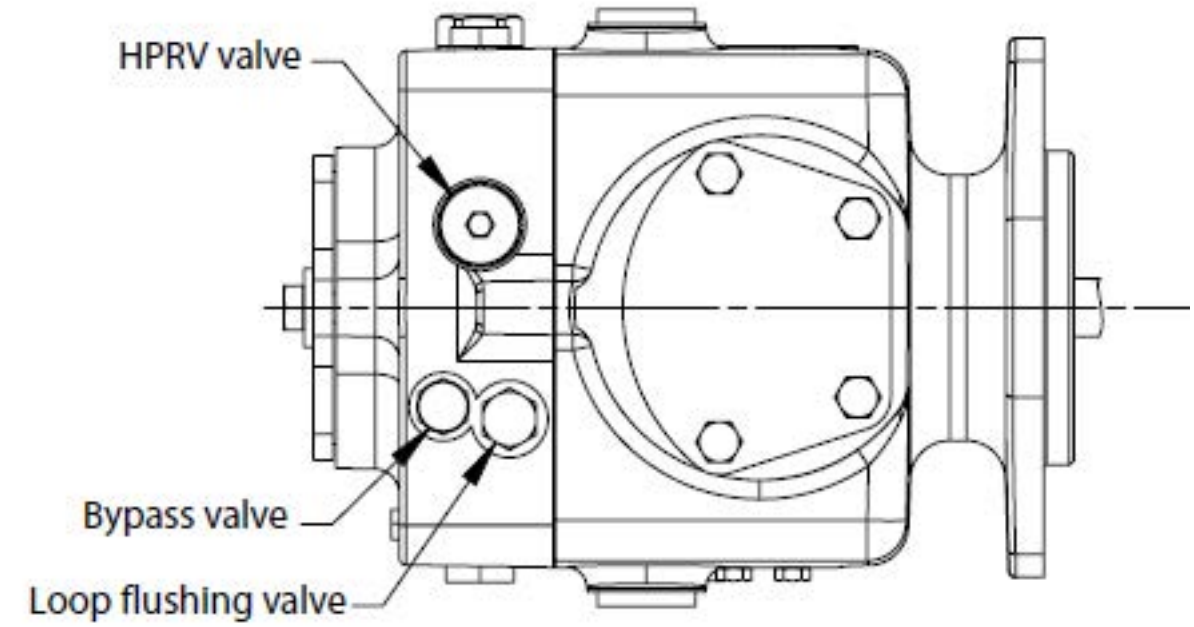
HYDROSTATIC PUMP INFORMATION:



HYDROSTATIC PUMP INFORMATION:



HYDROSTATIC PUMP INFORMATION:



ADJUSTMENTS OR REPLACING THE DRIVING CABLE:

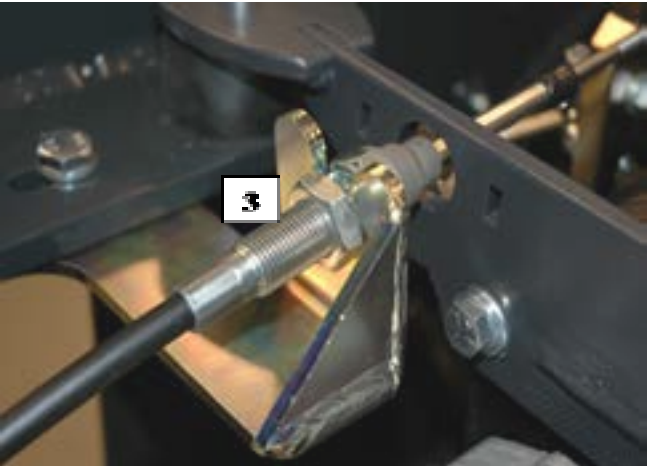
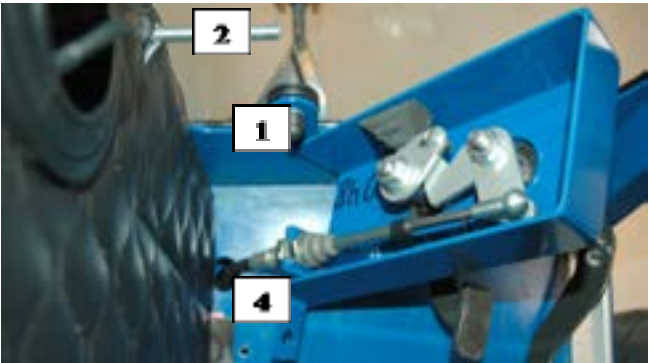
The driving cable of a Vitra tool carrier has a very central function. The cable is vital for the daily movement of the Machinery, particularly for acceleration and deceleration. It is fore that matter importance that this cable works perfectly.

The errors that can occur around the driving cable are as follows.	
The cable is removed from its original alignment, which can result in the Cable moving slowly being damaged or worn.	If the Cable has been injured, replace it, and then adjust it.
The cable can get out of adjustment, which can result in wrong Pedal position, incorrect neutral position, etc. This is because usually, one of the previous mention reasons, but it may also be due to a pedal that has come loose on the Axle.	The solution is to find the correct neural position and then adjust the pedal and cable.
Sluggish pedals can also be caused by a worn or broken rocker arm on the Hydrostatic pump	Replace the rocker arm.
If the pedal moves freely but will not return to the neutral position, this is due to a broken gas spring on the Hydrostatic arm.	Replace the gas spring.

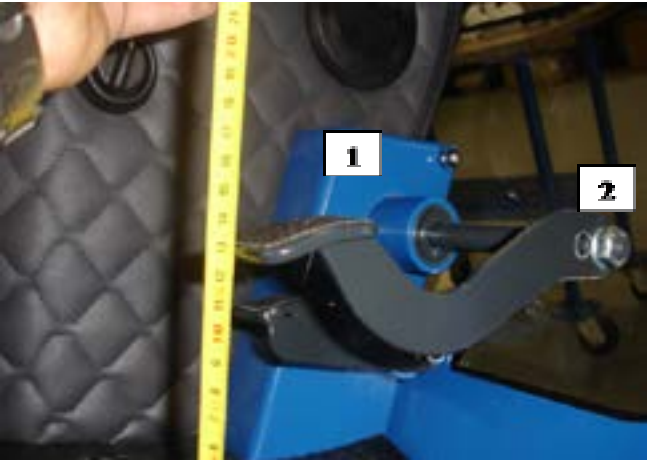
Be careful not to get undercoating sprayed on the Cable ends. It will penetrate the cable an prevent the cable from moving freely.

1. Tilt the cabin and clean the machine.
2. Remove the lower bolt in the front window. (Pos: 1) IMPORTANT
3. Remove the floor mat and remove the bolt and nut in pedal housing. (Pos: 2)
4. Disconnect the driving cable on Hydrostatic pump. (Pos: 3)
5. Remove all joints nuts, washers and rubber cap, then pull the cable out through the cabin incl. ... Pedal housing.
6. Remove the cable from the pedal housing. (Pos: 4)
7. Before the new cable is installed, check that the new cable has the correct length.
8. Check the condition of joints and bearing before reassembling.
9. Attach the new cable on the pedal housing, Fig.1
11. Washers, nuts and Rubber Caps are refitted.
12. Mount the cable on the adjusting bracket, push the lever on the hydrostate are pushed manually to max rear position toward the engine, The cable must be secured at this position.

ADJUSTMENTS OR REPLACING THE DRIVING CABLE:



1. Washers, Nuts and Rubber Caps are fitted.
2. Mount the Cable on the adjusting Bracket, then the Lever on the Hydrostate is pushed manually to max rear position toward the engine, The Cable must be secured at this position.



1. The Pedal Height is adjusted after the cable is installed.
2. The forward Pedal should be app. 13 cm. above the floor. The rearward Pedal must be app. 7 cm. above Floor.
3. Losen nut at pos.2 fore pedal height adjustment.

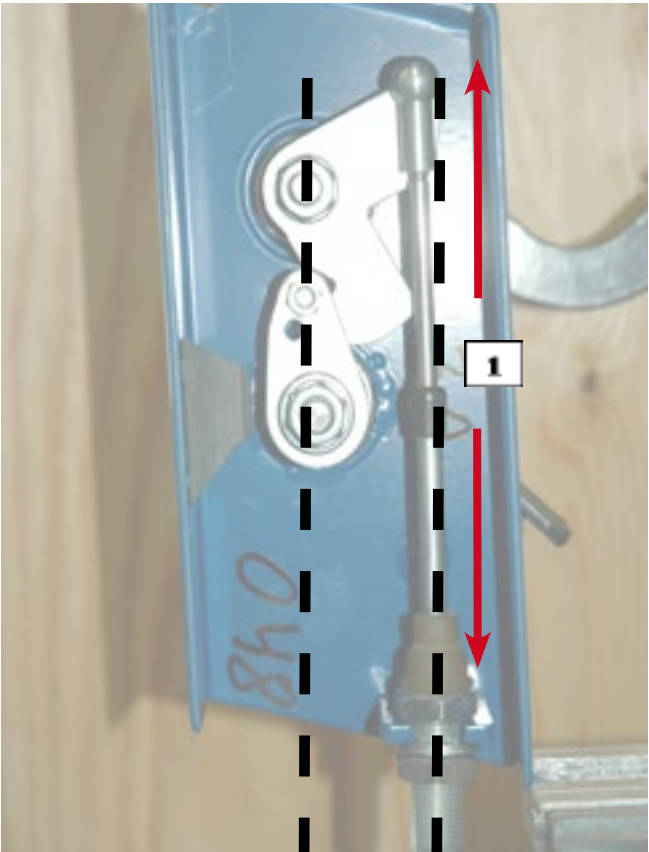
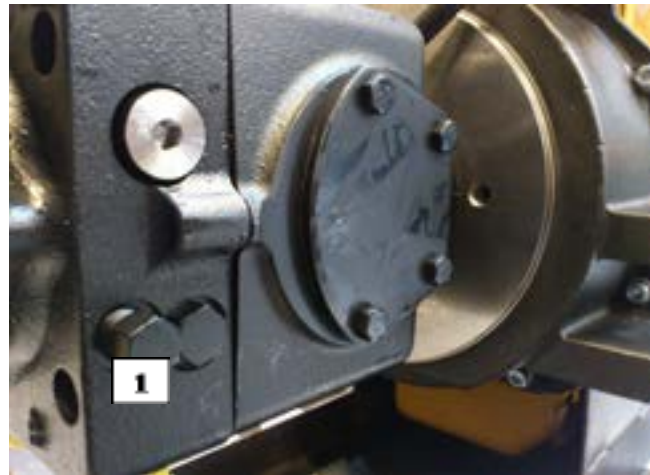


FIG. 1

Adjusting the Driving Cable.
The Cable must be mounted in Pedal Housing first, then adjusted as shown above.
The Pedals are Positioned as shown in picture.
Then extracted Cable is shown at (Pos.1)
It is adjusted by (Pos, 2) until the pedal is as shown with cable fully extended.

TOWING THE MACHINE:

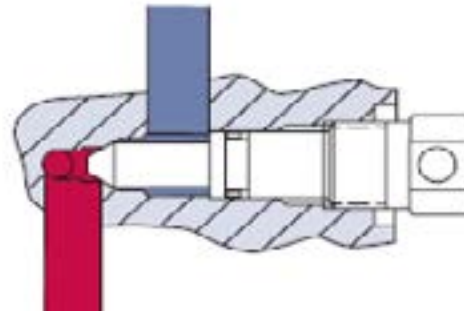
In case of having to tow the machine the instructions below must be followed carefully.



1. Hydrostatic pump bypass Screw. (Pos. 1)
Positioned on the left hand side of the Hydrostatic pump.
2. Transportation speed must not exceed 3 km/h.
3. Towing is only for small distance f.eks. pull up on a trailer.

The hydrostatic pump contains a dedicated bypass valve. the bypass function is activated when the bypass valve is mechanically backed out 3 full turns (maximum). The bypass function allows a machine or load to be moved without rotating the pump shaft or prime mover.

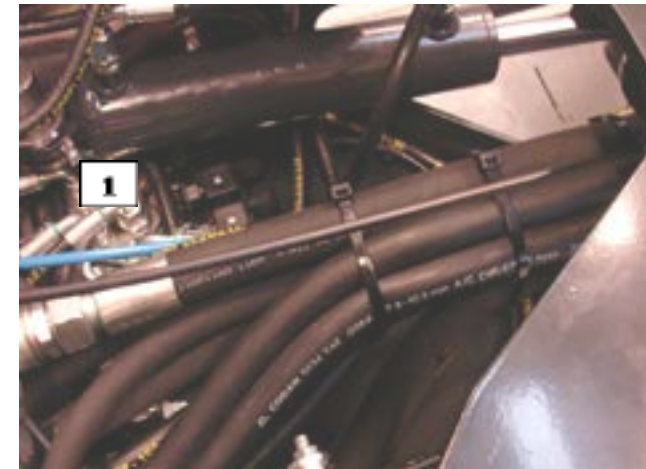
Bypass valve



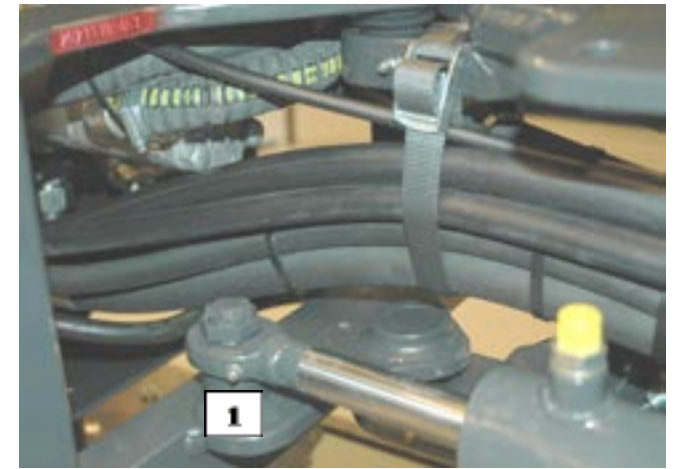
STEERING SYSTEM:

You will need **Molybdenum grease** to lubricate slow moving parts under a high pressure.

The properties of this grease is great adhesion ability and great strength.



Steering Cylinder front bracket.
Placed on the right hand side of the machine under the cabin.



Steering Cylinder rear bracket.
Placed on the right hand side of the machine under the pivot point on the rear part of the chassis.

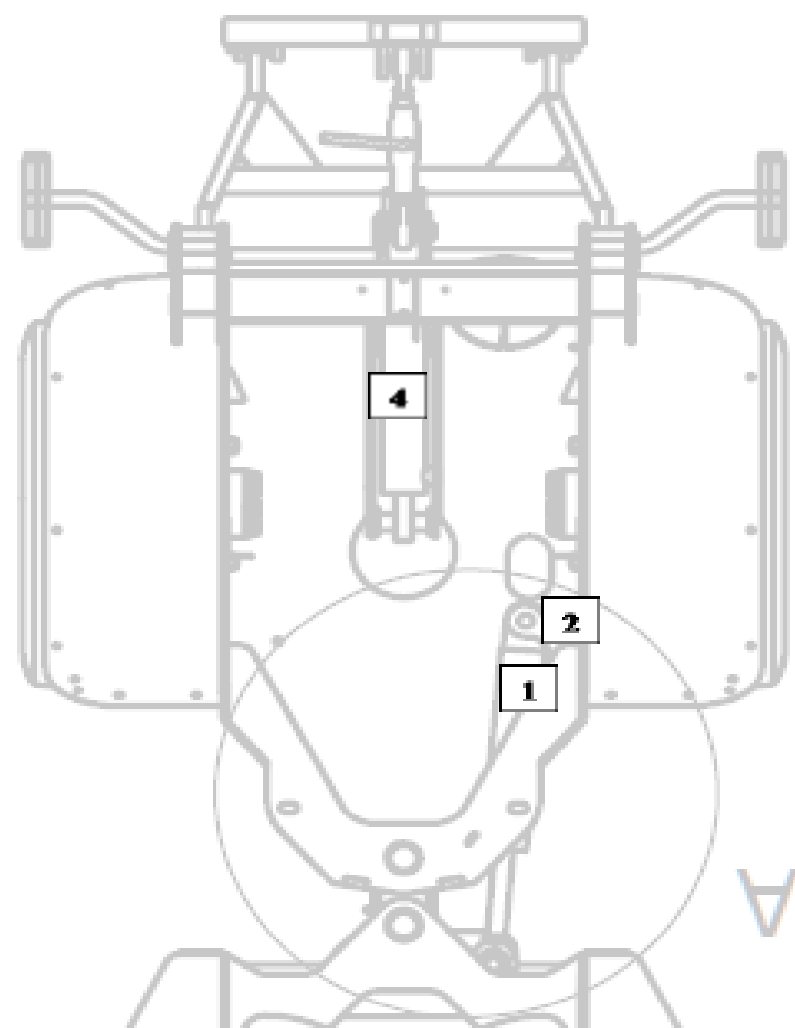


Top centre linkage. Option: Maintain free.



Bottom centre linkage.

COMPONENTS OVERVIEW:



- 1. Steering cylinder.
- 2. Forward steering bracket.
- 3. Hydraulic pump. Not illu. Mounted left side on the engine.
- 4. Orbitrol.
- 5. Bearing housing for welding.
- 6. Bearing.
- 7. Pin.
- 8. Nut.
- 9. Bearing housing for welding.

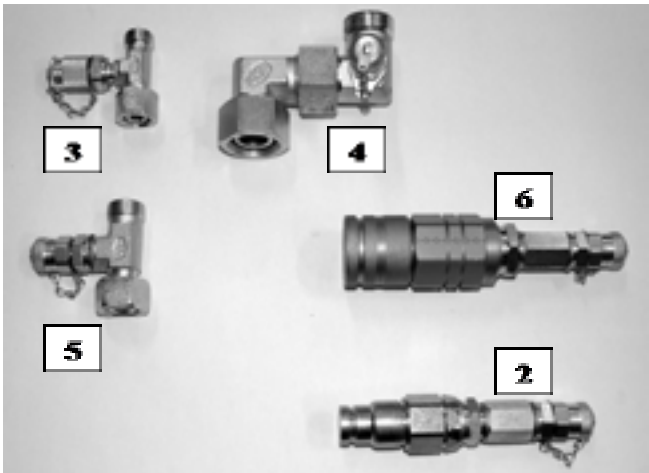


- 1. Steering collum.
- 2. Steering wheel.

PRESSURE MEASUREMENT:

Nr.	COMPONENT.	MEASURING CONNECTOR LOCATION.	ADJUST ITEM.	PRES-SURE. 2040	PRES-SURE. 2030
1	PTO.	FRONT	PTO BLOK	200	200
2	MANOEUVRING.	FRONT	UNDER THE WAGON	160	160
3	ORBITROL.	ORBITROL	ORBITROL P-PORT	150	150
4	OPERATING PRES-SURE.	HYDROSTATIC PUMP	HYDROSTATIC PUMP	300	250
5	BUSTER PRESSURE.	HYDROSTATIC PUMP	HYDROSTATIC PUMP	12	12
6	RETURN PRESSURE.	FRONT	NON ADJUSTABLE.	0,5-1,5	0,5-1,5

ADAPTERS.

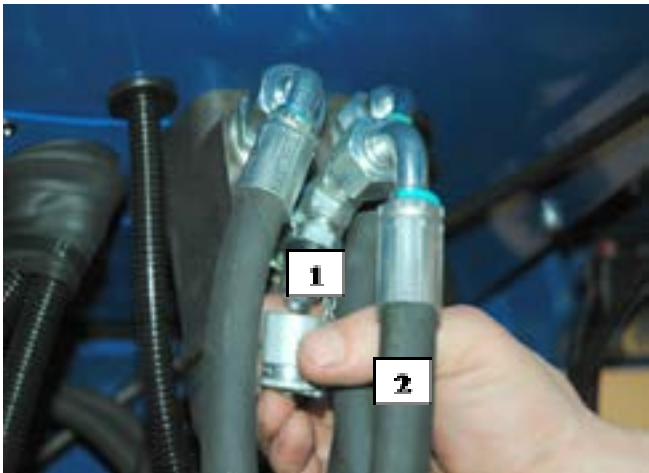


Measuring adaptors.

- 2. Manoeuvring functions.
- 3. Orbitrol.
- 4. Driving pressure from the Hydrostate.
- 5. Booster Pressure Hydrostate.
- 6. Drain front and rear.

Measuring connectors have Parts. No.

- 2. VÆ8220
- 3. VÆ8200
- 4. VÆ8210
- 5. VÆ8205
- 6. VÆ8215



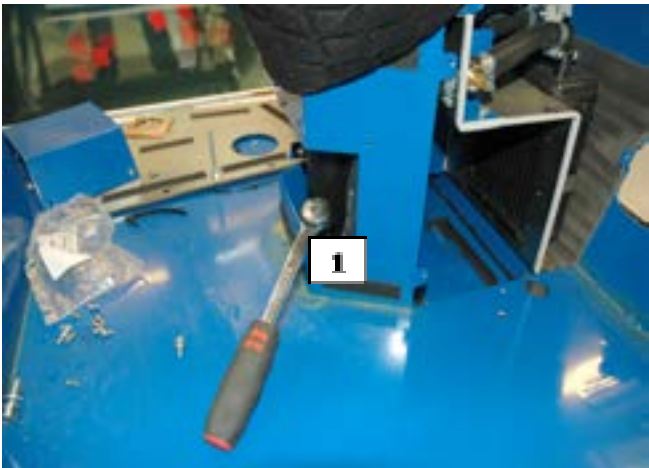
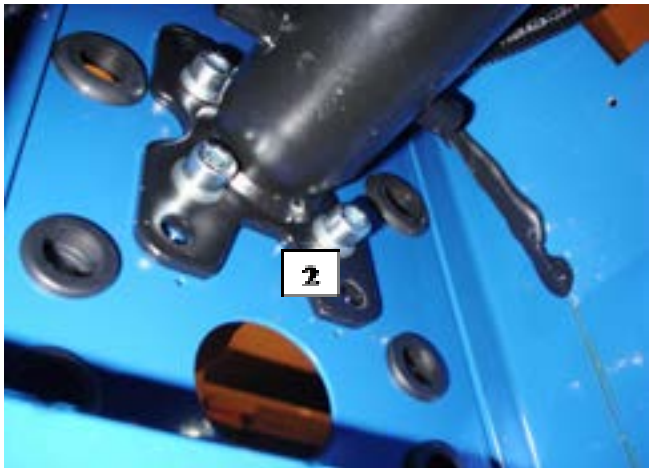
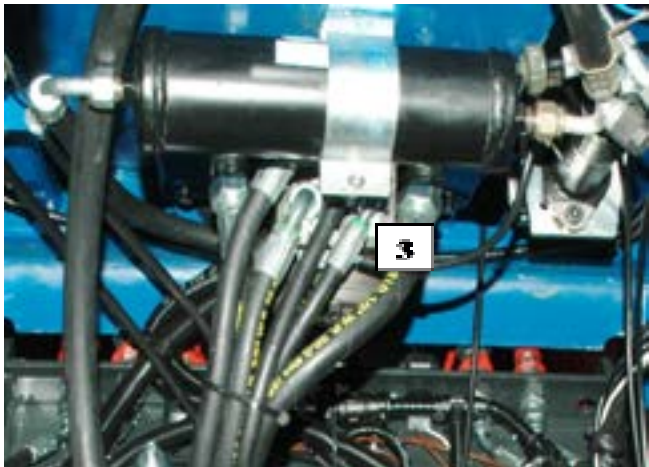
- 1. Measuring nozzle No. 1 is mounted on the input from the pump. The measured pressure must be 150 bar. Placed under the cabin. Before testing tilt the cabin following instructions on page 29.



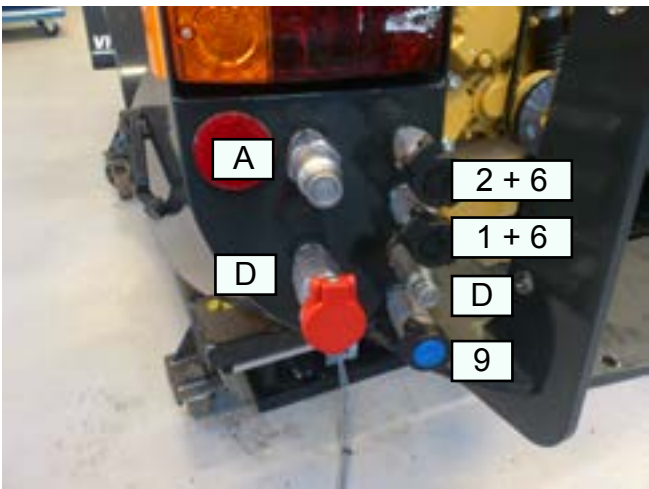
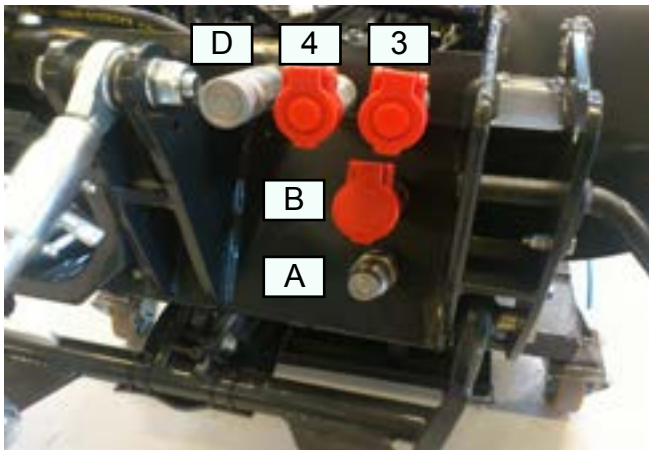
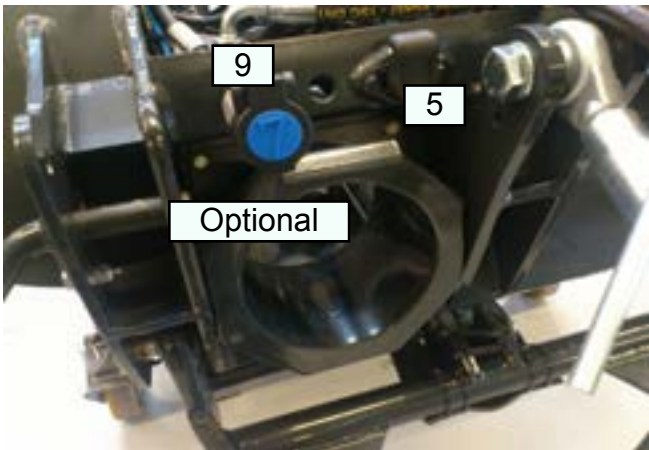
- Orbitrol:
- 1. Relief valve
- 2. Shock valves

DISASSEMBLING OF STEERING PARTS:

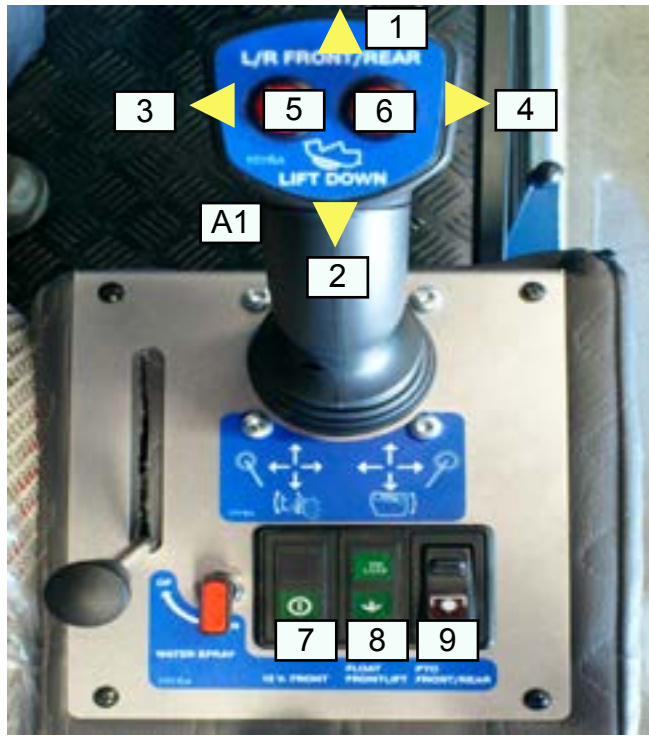
- 1. When replacing Orbitrol it is advantageous to loosen it (look page 29), before the cabin are tilted.
- 2. Unscrew the hydraulic hoses on the Orbitrol (Pos 3.)
- 3. Remember to check that the new Orbitrol is the same size as the old.
- 4. Unscrew the Orbitrol see (Pos 1 - 2)
- 5.



MANOEUVRE SYSTEM JOYSTICK:

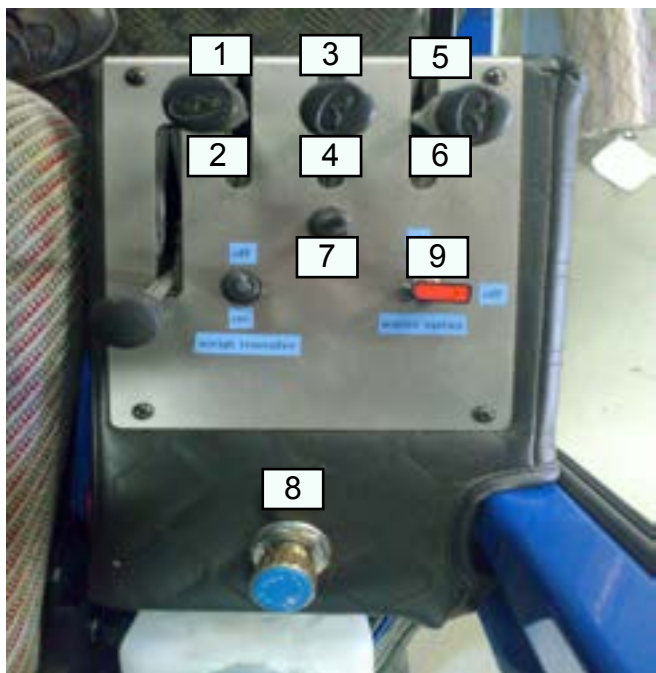
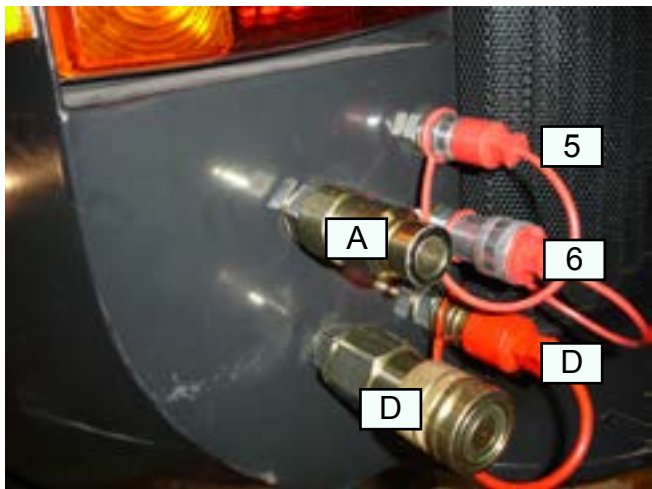
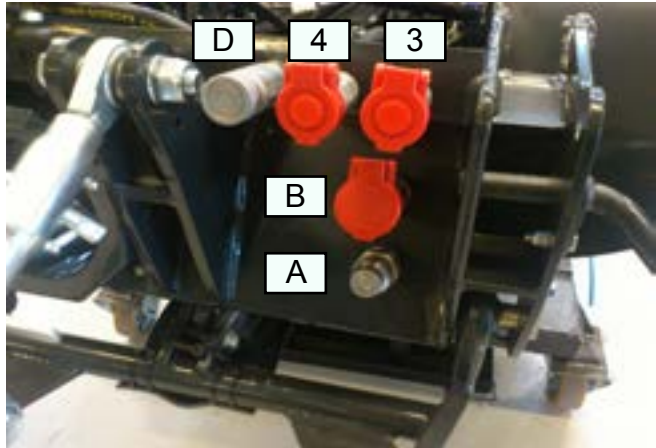
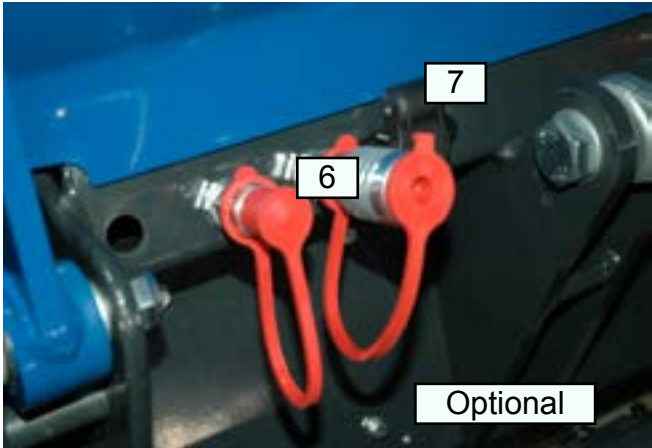


- A. PTO
- B. PTO - Reverse (Option)



- 1. Lift float position front. (1a Button to press with front lift.)
- 2. Lifting the Lift.
- 3. Left quick coupling front.
- 4. Middle left quick coupling front.
- 5. Power plug front.
- 6. Switching between front lift and quick coupling 1 and 2 behind.
- 7. Symbol for Power plug front.
- 8. Symbol for float position.
- 9. PTO small. Can only be used even front or back.
- D. Dræn.

MANOEUVRE SYSTEM MANUEL:



- A. PTO
- B. PTO - Reverse (Option)

- 1. Lift float position front.
- 2. Lifting the front tool.
- 3. Left quick coupling front.
- 4. Middle left quick coupling front.
- 5. Right quick couplers front + rear top couplings.
- 6. Right quick couplers front + rear mid couplings.
- 7. Power plug front.
- 8. Throttle valve for the front lift.
- 9. Water spray adjustment.

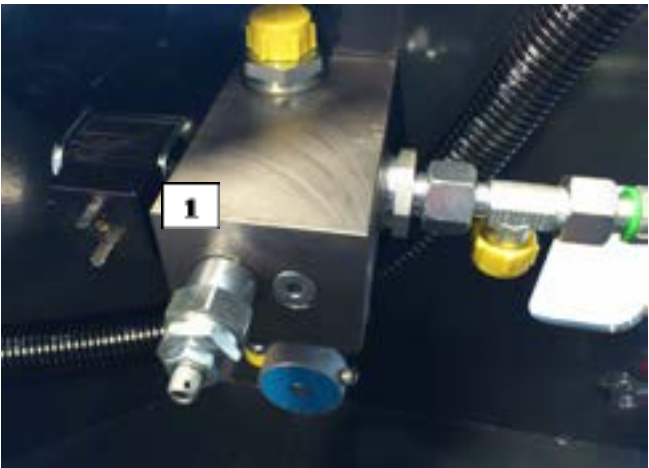
PRESSURE MEASUREMENTS AND SETTINGS:

Nr.	COMPONENT.	MEASURING CONNECTOR LOCATION.	ADJUST ITEM.	PRES-SURE. 2040	PRES-SURE. 2030
1	PTO.	FRONT	PTO BLOK	200	200
2	MANOEUVRING.	FRONT	UNDER THE WAGON	160	160
3	ORBITROL.	ORBITROL	ORBITROL P-PORT	150	150
4	OPERATING PRES-SURE.	HYDROSTATIC PUMP	HYDROSTATIC PUMP	300	250
5	BUSTER PRESSURE.	HYDROSTATIC PUMP	HYDROSTATIC PUMP	12	12
6	RETURN PRESSURE.	FRONT	NON ADJUSTABLE.	0,5-1,5	0,5-1,5



Measurement of manoeuvring pressure.

- 1. Performance 14 litre at 140 bar.
- 2. Max flow 14 litre.
- 3. Max pressure 160 bar.



- 1. By adjusting the pressure in manoeuvre system, adjust this valve first. Enable motor function and adjust the pressure (160 bar). Only for machines with Joystick control.



- 1. Flow depends on the flow regulation. (pos. 1) Only for machines with Joystick.



- 1. Adjusting the Pressure on Manoeuvring Valve is done underneath the front of the Machine (Pos. 1) See the pressure settings on top of the page.

INSPECTION AND ADJUSTMENT:



Important.

1. By the lift cylinder there is a nozzle mounted i the nipple.

Care should be taken to move the nozzle if you change the nipple.

The nozzle is only mounted on machines with maneuver levers. (With out joystick)



1. Manual cable steering Adjustment Fig. 1

Positioned under the cabin.

See page: 76 for adjustment.



Important.

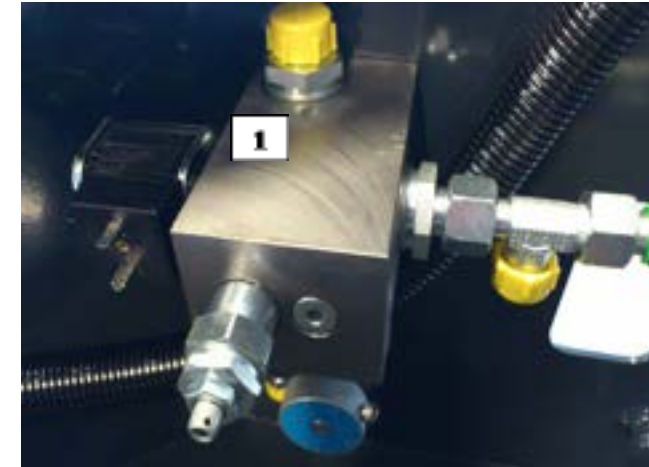
1. Remember to shim up the front lift, (Pos. 1) if it replaced.



1. Joystick steering Fig. 1

Positioned under the cabin.

MANOEUVRING VALVE JOYSTICK:



1. When the small PTO is disabled, the oil is running directly into the drain. Placed under cabin, behind left front wheel motor.

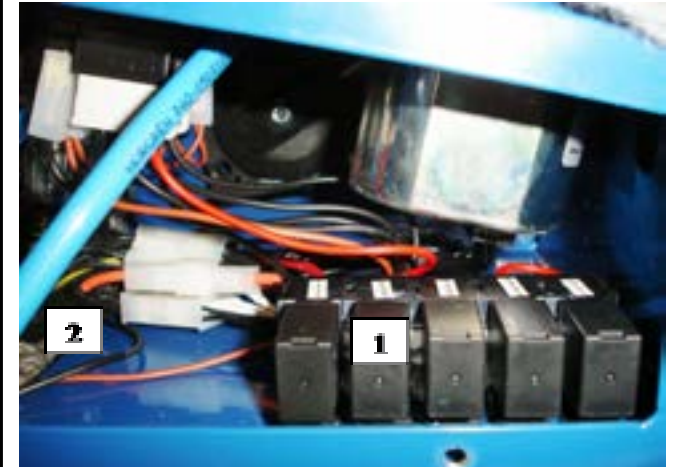


1. Valve for floating position of the front lift. Activated by pushing the joystick forward. Placed under cabin.



1. Flow control valve.
The flow control is used to share the oil between the manuring functions and the small PTO system.

Standard positioned between 4-6 on the scale pos.1



1. Relay control for the joystick steering box. Relays must be with diode.
2. Main fuse for joysticks. Placed in the technic box on the right side of the cabin.

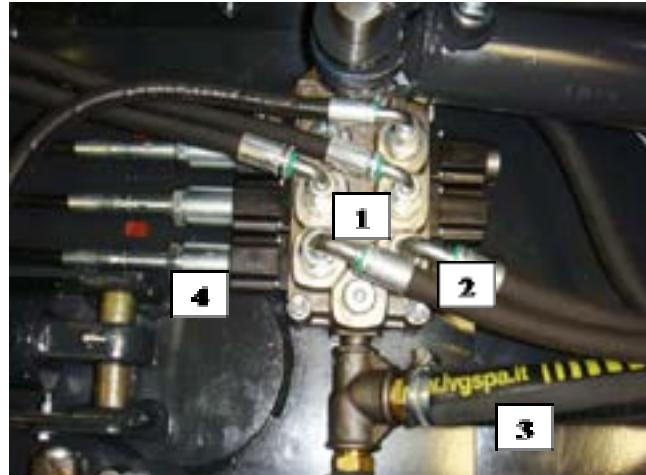


1. Fuse pos. 1 are for Joystick (kl.15) Placed on the steering column.



1. Fuse pos. 1 are for Joystick (kl.15) Placed under the fuel tank.

MANOEUVRING VALVE MANUEL:



1. Manoeuvring valve: (Pos. 1) is located under the the Cabin.

Pos. 2 Has a build in small PTO function.

Pos. 3 is the return Hose.

Pos. 4 is cable adjustments.



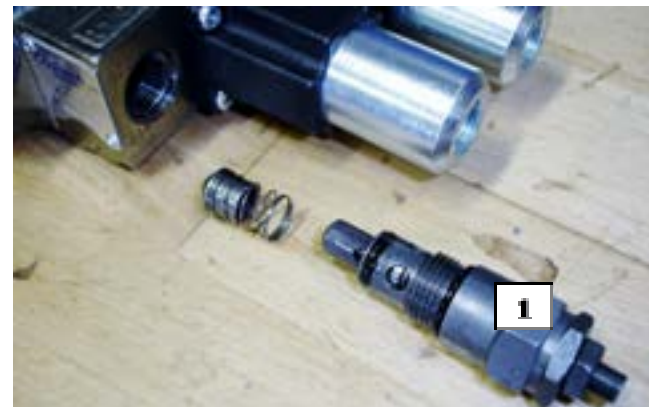
1. The cable is adjusted by rotating the outer steel housing (pos. 1)



1. Handle adjustment: should be in straight line.



1. Adjusting the Pressure on Manoeuvring Valve is done underneath the front of the Machine (Pos. 1) See the pressure settings on Page 73.



1. The pressure relief valve is the same on Joystick valve. Placed in the manoeuvring valve under cabin.

2030

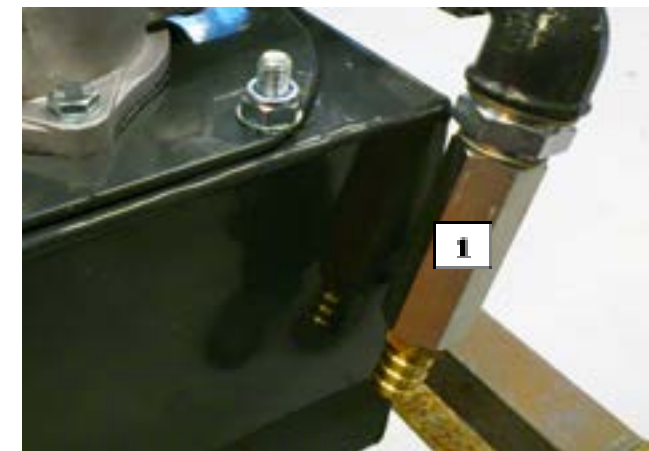
RETURN SYSTEM:

2040



1. The return oil filter. (Pos. 1)

Located on the top of the hydraulic tank.



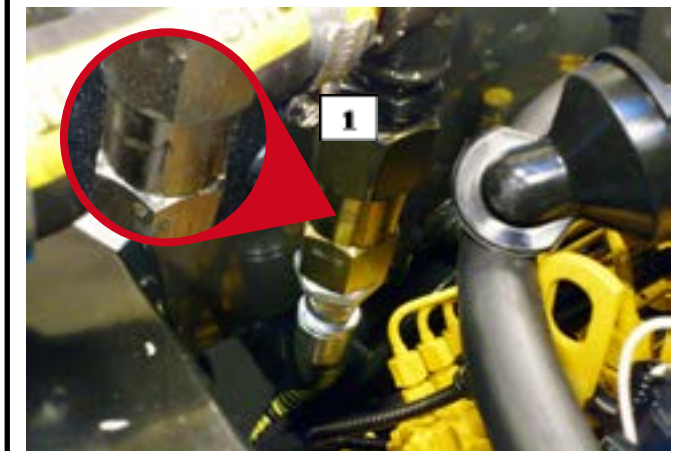
1. By-pass valve works as a thermostat, but uses the high pressure when the engine is cold to by-pass around the cooler radiator.



1. Back pressure is measured at the operating temperature, and should be about. 1-4 bar.



1. The Return Oil Filter. Pos:1

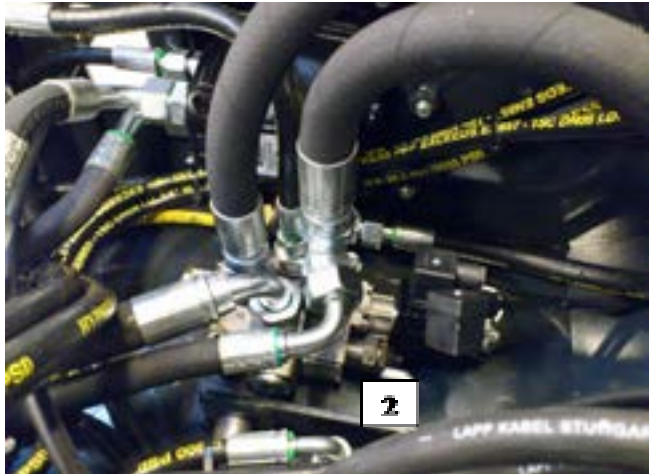


1. Oil thermostat by-passes around the the oil cooler up to 42 Celsius.

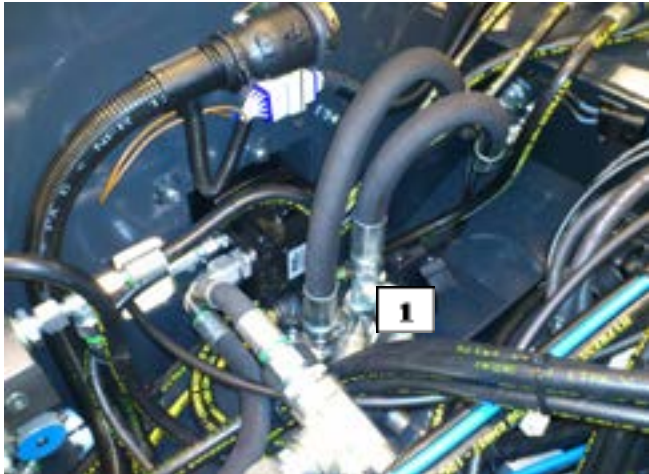
⚠ When replacing it, make sure to be installed with the arrow up (pos.1)

PTO SYSTEM:

Nr.	COMPONENT.	MEASURING CONNECTOR LOCATION.	ADJUST ITEM.	PRES-SURE. 2040	PRES-SURE. 2030
1	PTO.	FRONT	PTO BLOK	200	200
2	MANOEUVRING.	FRONT	UNDER THE WAGON	160	160
3	ORBITROL.	ORBITROL	ORBITROL P-PORT	150	150
4	OPERATING PRES-SURE.	HYDROSTATIC PUMP	HYDROSTATIC PUMP	300	250
5	BUSTER PRESSURE.	HYDROSTATIC PUMP	HYDROSTATIC PUMP	12	12
6	RETURN PRESSURE.	FRONT	NON ADJUSTABLE.	0,5-1,5	0,5-1,5



1. The PTO valve is a single action can be upgraded to Double-Acting with a kit, which is mounted on the PTO valve
Adjusting PTO pressure at (Pos. 2)



1. The PTO Valve is located at the left front wheel motor.



1. Forvard (std.)
2. Revers (option.)



All pressure must be measured at operating temp

Specifications subject to change.
We reserve the right to make changes to the machine without at the same time these instructions are change.



Producent:
Lindholdt Maskiner A/S
6818 Årre DK.